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ABSTRACT

This annotated bibliography has been compiled to aid museum staff members as they develcp and implement naturalistic evaluations cf museum programs and practices. Naturalistic evaluation is a recent assessment perspective which is concerned more with interpretation than judgment. It is characterized by concern with spontaneous activities rather than pre-stated and/or overly formal objectives, ability to respond to staff and audience requirements for different kinds cf information, reccgnition that different values and perspectives are equally valid, stress on wide-ranging implications, participation by a wide range of people who are to be served by the study, and orientation toward a search for meaning of an entire experience such as a museum visit. Bibliographic entries are arranged in four sections--Background and Rationale, Collection Strategies, Analysis Strategies, and Sample Studies and Reports. Each section begins with a brief explanation of the books and articles included and their relevance to museum evaluation. For each entry, information is presented on title, author, publisher or journal, and an annotation of the book or article contents. Each annotation explains specific relevance to the museum context, identifies sections of particular interest, and comments on how evaluators can best approach reading the material. (DB)

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NEW PERSPECTIVES ON EVALUATING MUSEUM ENVIRONMENTS:

AN ANNOTATED BIBLIOGRAPHY

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About the Authors

Dr. Robert L. Wolf is currently the Director of the Office of Psychological Studies at the Smithsonian Institution (part-time). Additionally, he is a professor of education evaluation, chairs the graduate program in evaluation inquiry methodology, and directs the Indiana Center for Evaluation at Indiana University, Bloomington, Indiana. Dr. Wolf has consulted in evaluation issues with a wide range of governmental and private agencies in the United States and abroad. Most recently, he has been active in Museum Evaluation and is a member of the American Association of Museums steering committee on evaluation. Dr. Wolf has been instrumental in developing and adapting the Naturalistic/Responsive Inquiry paradigm to socio-educational evaluation. Naturalistic/Responsive Inquiry is aimed at broad program understanding through qualitative assessment strategies, and derives its rigor from the field oriented disciplines of cultural anthropology, sociology, and investigative journalism. This annotated bibliography reflects Dr. Wolf's belief that these disciplines contain important methodological concepts that can help formulate new evaluation procedures in studying museum contexts. Dr. Wolf has authored numerous articles on socio-educational evaluation in a variety of professional journals and is currently publishing a set of papers on museum evaluation through the Smithsonian. He is also completing a book on Operationalizing Naturalistic/Responsive Inquiry.

Ms. Mary F. Andis and Ms. Carey E. Tisdal are both advanced doctoral students in educational evaluation at Indiana University. Ms. Andis and Ms. Tisdal are research staff members in the Indiana Center for Evaluation and for the past two years have worked on the evaluation of the Children's Museum of Indianapolis.

Dr. Barbara L. Tymitz is an Assistant Professor of Educatior at Indiana University and also the Assistant Director of the Indiana Center for Evaluation. Dr. Tymitz has broad experience in educational evaluation, particularly programs that involve young children and their families. She has coordinated the evaluation of the Children's Museum of Indianapolis for the past two years, and has been involved in a variety of other museum evaluation projects. Dr. Tymitz is currently consultant to the Smithsonian's Office of Child Development, the Bureau of Education for the Handicapped, the U.S. Office of Education, and the Children's Television Workshop. Dr. Tymitz has published in the fields of early childhood education, special education, and educational evaluation. She too has been actively involved in adapting naturalistic inquiry strategies in the evaluation of museum environments.

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Introduction

There are a variety of forces impacting on museums throughout this country to make them more accountable to the publics they serve. A large portion of those forces comes from the federal government whose increasing scrutiny of all federally funded programs is exemplified by the 1977 Evaluation Conference sponsored by the National Museum Act, administered by the Smithsonian Institution, which gave a clear mandate for museum evaluation. Similarly museum patrons who have been pledging unquestionable support in the past now are more interested in knowing what impact their dollar contributions are having on the programs and services museums offer. In short, in an age of increasing public accountability, there is a prevailing expectation that museums will be evaluating their programs. And it is our belief that museum evaluation studies can and should contribute to the general understanding of a particular museum's educational and sociocultural impact by raising new questions as well as by providing information.

As museum persons are discovering, however, the costs of doing evaluation are greater than the costs of the personnel and the data displays that show up on the ledger. The staff is distracted from ordinary duties; visitors are sometimes diverted from some portion of their museum experience; and to many people the evaluation is a threat.

Yet evaluation can offer a greater understanding of what is going on, a feeling of greater security that what appeared to be working is working, a better sense of different points of view about what the problems are, and a description of how the staff functions to provide quality experiences for its visitors.

There are problems inherent in this latter effort. For example, there is a danger in trying to simplify the museum mission. There is a risk in confusing education with indoctrination (of the visitor). Equally important is the recognition by museum personnel that the quality and meaning of the experience is quite a personal determination -- one that different visitors make for different reasons. Evaluation that captures these differences and promotes some understanding in the process becomes justifiable and ultimately beneficial.

What are needed, therefore, are evaluation methods approximately suited to the museum context so as to both respond to the mandate for increased evaluation activities and at the same time be useful to the museums themselves. While some evaluation activities have occurred over the past three decades, they have been predominantly classical/experimental studies that have focused on isolated psychological variables, i.e. visitor fatigue, amount of time spent viewing an object. Such forces have not allowed insight into the complex impact that museums have on visitors' experiences. Moreover, past studies have not been able to inform programmatic decisions. Finally, much

evaluation has been highly critical -- composed of negative punitive statements which typically discourage, anger, and disappoint the evaluation audience.

We believe that in order to best serve people involved in or affected by any museum program, evaluation must guide and inform the decisions that need to be made. That is, evaluation must respond to people's concerns. Additionally, evaluation must provide an in-depth understanding of what impact the museum program is having upon the consumer. In other words, what kind of experience does the visitor have, and what is the value of that experience?

Evaluation strategies become responsive if they 1) orient more directly to program activities rather than to program intents; 2) respond to staff and audience requirements for information; and 3) refer to different value perspectives in reporting the success or failure of the program. The responsive strategy suggests that the evaluation should take a broad, holistic view of the program, describe as well as analyze, and make special efforts to communicate with program personnel and audiences.

Naturalistic/responsive evaluation strategies are more useful and more comprehensive than most conventional evaluation procedures. They develop through successive approximation. Responsive evaluation begins with issues that are discussed and clarified by a sampling of program participants, administrators, exhibit staff, and, of course, visitors. From these discussions new questions are raised; more data is sought; constant feedback is provided; new decision needs arise; and so it goes. The evaluation design is not formulated in advance, it is not static; rather, it continuously evolves and is modified as the evaluator interacts with people in and about the museum.

This evolving evaluation mode is particularly useful when those seeking an evaluation are unsure (or do not understand) what it is they wish to have evaluated. In some ways, responsive evaluation teaches the staff or audience as it emerges. Presenting the initial evaluation feedback to the staff and allowing their discussion on the data shapes the continuing inquiry.

In essence, the naturalistic/responsive approach is based on the assumption that evaluation should "respond" to the needs, interests, and perceptions of the audience rather than rest upon measurement criteria established a prior and/or in absence of input from the actual recipients of the evaluation. The audience for the study shapes the direction of the inquiry. Philosophically, the approach legitimizes that there are multiple realities and multiple truths. Thus, unlike the majority of investigatory efforts, the present approach elicits, considers, and builds upon the in-depth information that is provided by its many respondents. The final data interpretations portray similarities and differences in perceptions while describing the origins and context for such agreements and discrepancies.

Because museum environments are perhaps our society's last refuge for meaningful, nonformal, and creative learning to transpire, they demand comprehensive evaluation methods which do justice to their mission and potential.

As stated, museum evaluation efforts have traditionally followed experimental/statistical research designs which too often focus on a narrow range of issues, and, thus, ignore the dynamic complexity of museum environments. This type of study frequently produces results that neither adequately describe the situation being examined nor provide meaningful insights for modification of programs and future planning efforts. It is our belief that in order to best serve people involved in or affected by museum programs, evaluation must guide and inform decisions that need to be made.

The purpose of this bibliography, therefore, is to acquaint museum educators, design staff, curators, and administrators with new perspectives on evaluation that, in our view, respond to the complexity, creativity, humaneness, and aesthetics of the museum context. There is a growing body of literature in anthropology, sociology, humanistic psychology, journalism, and education which provides both a rationale and a set of procedural guidelines for conducting naturalistic/responsive evaluation for the benefit and betterment of museum environments.

An evaluation is naturalistic and responsive if it presents slice-of-life episodes documented through natural language and representing as closely as possible how people feel, what they know, how they know it, and what thier concerns, beliefs, perceptions, and understandings are. In addition, the process must respond to both museum staff and visitor requirements for information and the manner in which such information will be used.

Doing naturalistic/responsive evaluation is no simple task. We know because we have employed these methods in a number of museums and zoos around the United States over the past several years. It requires finely honed skills in observing, listening, questioning, recording, analyzing, communicating, and reporting. It also requires flexible thinking, tolerance for ambiguity, and openness to multiple perspectives.

While some of the strategies of naturalistic/responsive evaluation are similar to the methods employed in field research in anthropology, participant observation in sociology, investigative reporting in journalism, and clinical approaches in psychology, they are not the same. We have, therefore, reviewed appropriate and relevant works from these disciplines but have discussed their adaptation for conducting naturalistic/responsive evaluations in museums.

For convenience, the information in this bibliography has been divided into four sections: Background and Rationale, Collection Strategies, Analysis Strategies, and Sample Studies and Reports. Each section begins

with a brief explanation of the nature of the books and articles included and their relevance to museum evaluation. Each reference is annotated by explaining specific adaptation to the museum context, identifying sections of particular interest, and commenting on how to approach reading the material. It is hoped that the references cited and described herein provide direction, spark interest, provoke thoughts and insights, and whet the appetite for conducting more naturalistic/responsive museum evaluations.

Background and Rationale

As museum professionals look at naturalistic/responsive evaluation and consider using it in studying museum exhibits and programs, such questions as "What is it?" and "Why do it?" will arise. The sources in the "Background and Rationale" section of this bibliography have been selected to answer these questions.

Sources have been arranged into two areas. The first, "Definitions and Rationale for Naturalistic/Responsive Evaluation," includes sources that define the process and explain why it should be used. Although these sources are listed in alphabetical order, Wolf and Tymitz's "Toward More Natural Inquiry in Education" and Robert Stake's Evaluating the Arts in Education are good places to start.

Since new perspectives in museum evaluation are being offered, sources in the second area are included that point to the limitations of the old perspective, experimental/statistical research. The authors of these sources raise provocative questions which lead one to consider the wisdom of studies that present numerical descriptions of visitor behavior, programs, and exhibits.

The articles and books in this section do not tell one how to do naturalistic/responsive evaluation; sources of that type are cited later in the bibliography. But sources here clarify why naturalistic/responsive evaluators choose their methodology and why this type of evaluation is well suited to the museum environment.

I. Definitions and Rationale for Naturalistic/Responsive Evaluation

Denzin, Norman K. "The Logic of Naturalistic Inquiry." Social Forces, Vol. 50, No. 2 (1971): 166-182.

This article is suggested for those interested in the theoretical framework which underlies naturalistic/responsive evaluation. Denzin defines and discusses what he terms naturalistic behaviorism -- "the studied committment to actively enter the world of . . . people and render those worlds understandable from the standpoint of theory grounded in behaviors, language, definition, attitudes and feelings." This idea that Denzin presents, that theory or explanations must be grounded in the perspectives of the people involved, is a very important element in naturalistic/responsive evaluation. This means that theories explaining, for example, how visitors use museum labels are not devised from what national reading scores show - what happens with reading in schools - nor are they devised from popular psychological theories. The explanations that the naturalistic/responsive evaluator devises come from watching people in the museum, talking to people in the museum, and

looking at the actualities of the situation. This is a very different type of inquiry from that of the scientist who attempts to impose an explanation and verify it so that it can be generalized to all situations. The naturalistic inquirer is sensitive to the unique aspects of the situation in the museum. Denzin also discusses the problems of sampling, measurement, and causal analysis. The idea of theory development may seem esoteric and removed to the museum educator. However, if explanations from an evaluation are going to be used in making decisions about museum programs and exhibits, the museum decision-makers must be very concerned about the match between the theory and the actual situation. This article requires careful and thoughtful reading and is not suggested as the very first to be read or for those interested primarily in the "how to" of naturalistic/responsive evaluation. However, reading and thinking about Denzin's ideas will make museum educators more sophisticated consumers and practitioners of evaluation.

Guba, Egon G. Toward a Methodology of Naturalistic Inquiry in Educational Evaluation. CSE Monograph Series in Education, Vol. 8. Los Angeles: Center for the Study of Evaluation, 1978.

Museum educators can approach this source to find definitions and descriptors of naturalistic inquiry, arguments for using this approach, and a comparison between naturalistic inquiry and other types of evaluation. Guba covers "middle range" issues in naturalistic inquiry which fall between the general philosophic base and specific practices. Chapters I and II are particularly useful. In these chapters, Guba gives six descriptors which characterize the approach. He uses dimensions such as philosophic base, purpose, stance, framework, and style to compare naturalistic inquiry with other types of inquiry. These comparisons will provide a base for viewing the unique aspects of naturalistic inquiry. Furthermore, he presents arguments for using natural inquiry. These arguments are relevant to the museum. He notes that naturalistic inquiry is well suited for the study of process. Since many of the areas of interest in museums are processes (docent-visitor interaction, visitor-exhibit interaction, and museum-community relationships), this is an important characteristic of the naturalistic approach. Guba also points out that the naturalistic approach does not ignore implicit forces which shape outcomes. For example, what the visitor learned is considered, and so are the tacit elements such as the relationship of learning to an individual's background, the museum traffic patterns, the crowd size, the exhibit design. Also, by taking place in a "real world" setting the result of naturalistic inquiry relates directly to the training, design, and programming decisions museum personnel must make. This source is a good place to go to find out what naturalistic inquiry is and why to use it, but not to find specific strategies to carry out the process. Precisely and clearly written. Highly recommended.

Kemmis, Stephen. "Telling It Like It Is: The Problem of Making a Portrayal of an Educational Program." In Curriculum Handbook: Administration and Theory, edited by Louis Rabin. Boston: Allyn and Bacon, Inc., 1977.

A museum evaluation is most useful if it does two things: 1) provide a surrogate experience for those too distant to directly experience a museum program and 2) provide a broader perspective and fresh insights for those too closely involved with exhibits, tours, or programs. Kemmis, in this article, deals more specifically with Robert State's notion of portrayal as a useful way to explore situations and report findings. Portrayal is a technique which places a high premium on rendering and communicating an experience. Some people reading an evaluation report may not possess the expertise of measurement specialists, but they do have an interest in knowing about and understanding a program. Portrayal shows an awareness for this audience. It is a way for a program to "tell its own story." That is, it informs about the nature of the program, its unique features, its successes and failures, the issues surrounding it, and the people who staff it and whom it serves. "It attempts to capture the complexity of the program, be holistic, preserve uncertainty or ambiguity, avoid oversimplification, and round out the multiple reality of the program." Kemmis says this is accomplished by an iterative process in which themes emerge which express insights about the program. Furthermore, the language and perceptions of participants and evaluation audiences shape the insights, themes, and communication that result in the final portrayal. Adapting this for a museum setting, the portrayal maker for a school tour program would be concerned with the insights of the teachers, school visitors, docents, and staff involved in the program. S/he would attempt to "portray" these insights through a descriptive report written in the language of the participants that would relate "what happened," much as a literary artist, so that those not there would have an understanding of what the program was like. This is an interesting article, well worth the reading. It provides conceptual background for understanding the nature and merit of the evaluation reports cited in the last section of this bibliography.

Overholt, George E. and Stallings, William M. "Ethnographic and Experimental Hypotheses in Educational Research." Educational Researcher, Vol. 5, No. 8 (1976): 12-14.

This article provides an important rationale for the use of naturalistic/responsive evaluation. A museum person seeking to learn of a specific exhibit's impact has at least two study options open. S/he can begin, as in experimental/statistical research, with an hypothesis about whether or not the exhibit is a success. The museum person must then determine the criteria for examining success in the exhibit area. On the other hand, s/he can go to the exhibit area to discover what is happening. In this ethnographic approach, as in naturalistic/responsive evaluation, the hypotheses or questions emerge as the study progresses. Overholt and Stallings describe how the theorists in anthropology approach the work and how hypothesis generating in ethnographic study contrasts with hypothesis generating in experimental research. The anthropologist

guards against going into the field with specific expectations (hypotheses). Unlike experimental hypotheses which are raised prior to an experiment, the anthropologists' hypotheses are generated only after observational data have been collected. They hypothesis may be dropped or modified if it does not fit ethnographic facts. Furthermore, in ethnographic study the hypothesis must account for as many of the observed facts as possible with as great a degree of economy and simplicity as possible. Therefore, the ethnographic hypothesis remains empirically grounded in a way that the experimental hypothesis does not. The authors hope to show that ethnographic strategies are both culturally relevant and empirically grounded. The points in the article are important to museum persons because the approach to the study affects the interpretation of the results. For instance, the results from experimental study on exhibit impact may focus too narrowly to be of value. The naturalistic/responsive evaluation, on the other hand, does not predetermine the philosophy behind an exhibit and is flexible enough to provide observational and interview data describing the actual happenings. In this case, the museum staff across various departments with different points of view can see if the exhibit is a success according to their respective criteria. This is recommended reading for a sense of the value and the rigor of naturalistic/responsive evaluation.

Phillips, Derek L. Abandoning Method. San Francisco: Josse-Bass Publishers, 1978.

Phillips provides a provocative challenge to many of the assumptions that underlie traditional museum evaluation studies. He argues that social science methodology, particularly quantitative analysis, inhibits the discovery of useful information. He draws a careful case for abandoning traditional methods and moving toward alternative ways of conceptualizing inquiry. Considerable data are presented that point to the bias and invalidity of social research, and Phillips argues that it is impossible to control for these conditions, given present methodological orientations. This fascinating, original book is interestingly written, especially Part II. The reader comes away wondering, "What if he's right?"

Salazin, Susan. "Exploring Goal-Free Evaluation: An Interview with Michael Scriven." Evaluation, Vol 2, No. 1 (1974): 9-16.

One of the features of goal-free evaluation is looking at the activities of a program rather than the intents. Translating this into naturalistic/responsive terms, the objectives or intents for a program or exhibit are not used as the criteria for studying the appropriateness of activities in the museum context. Instead, once the evaluator has described the activities, the program or exhibit designers can judge for themselves whether or not they have met their objectives. In this sense the evaluation is less narrowly focused and less misleading than that based on objectives. In fact, it is possible that the objectives themselves are inappropriate and should not be used as the criteria

for an evaluation. A situation should arise in which an exhibit or program is a success in the eyes of the general public despite the fact that the program of exhibit did not meet the original objectives. Such a situation should not be ignored. If something is a success, the museum staff needs a descriptive report that helps them determine why. There is, then, a distinction between the intents, or what people say they will do, and activities, or what they actually do. Scriven terms this distinction goal-free evaluation. In this interview, he talks about his meaning for goal-free evaluation and stresses the distinction. He elaborates on how goal-free evaluation is different from evaluation based on goals. He gives his opinion on how the type of evaluator for goal-free evaluation should be trained. Scriven mentions that only by doing qualitative evaluation, such as goal-free evaluation, can we truly understand the immense complexity of situations. This interview is most supportive of and encouraging toward naturalistic/responsive evaluation. It is valuable for developing an understanding of the type of structure the practitioners of naturalistic/responsive evaluation develop and work within. All too often this type of evaluation is seen as willy-nilly because its structure is less easily recognized than the kind that ties itself to goals. Scriven helps to rectify this misunderstanding. This is a short article well worth the reading.

Stake, Robert. Evaluating the Arts in Education: A Responsive Approach. Columbus, Ohio: Charles E. Merril, 1975.

Using naturalistic/responsive evaluation for getting at the impact of exhibits or programs or docents seems valuable. But, the museum educator may wonder what the "plan" for such an evaluation is like. How has naturalistic/responsive evaluation been defined and how has it been used in situations similar to those in museums? Stake addresses these questions in this small but excellent book. The responsive approach to evaluation is Stake's brain-child. As such, his description and view of the approach serve as vital background to an understanding of what naturalistic/responsive evaluation is and should be. Furthermore, he deals with the arts in education, an area difficult to "measure" because it deals with wonder, creativity, and appreciation. This is similar to the situation in a museum because it too deals with these elements. The first chapter provides an overview of the responsive approach, how it can be done, and how it can be used. Stake is highly sensitive to the layers and complexities of the educational system, a situation paralleled by the total museum experience, and how difficult it is to gain a picture of the situation by using checklists or questionnaires. Putting his suggestions in the museum context, the museum evaluator would develop a plan of observations and interviews and arrange for various persons to observe and interview within exhibits, programs, or tours. The observer/interviewers would find out what is of value to those experiencing the chosen situation and would gather impressions of worth from individuals with differing points of view. With the help of the observer/interviewers, the museum evaluator would prepare brief narratives or portrayals that communicate what the observed situation is like. Stake feels that an evaluator's report should help people discover a more "total" picture of a program or situation and should allow people who are not usually heard from to voice an opinion. This responsive approach received its name

because it responds more than most approaches to the subtleties and on-going changes in program or situation. Included are examples of possible program questions to which naturalistic/responsive evaluation addresses itself. This chapter is followed by an interview with Stake in which he discusses his concerns and views about the evaluator's role. Skim the rest of the book, although an added bonus is the book's final bibliography which should be looked at more carefully. It highlights and annotates background readings and sample evaluation reports. This book is an absolute "must" for an understanding of the naturalistic/responsive evaluation process and is the best source to read before searching out other references in this bibliography.

Wolf, Robert L. and Tymitz, Barbara. "Ethnography and Reading: Matching Inquiry Mode to Process." Reading Research Quarterly, Vol. 12, No. 1 (1976-77): Guest Editorial.

With the greater influx of museum visitors, there has been concern over the educational impact of the museum experience. This experience includes not just an aesthetic appreciation of the museum environment but also an involvement with the content or subject matter of exhibits and displays. Museum educators are questioning the kind of learning experiences they are able to provide through content. This is closely allied with the concern professional educators have about the learning process and its relation to learning subject matter. This article is included here as a recent example of the type of alternative that educators view as promising in studying learning in a subject matter area. Wolf and Tymitz specifically focus on the area of reading, which is one of the more highly theory-developed areas in education. As they point out, professionals in the field of reading have often neglected to encourage research approaches other than those which focus on isolated problems and specific outcomes. As a result, they have rarely examined the process of reading itself, and what that says about learning strategies. Wolf and Tymitz view reading as a dynamic, complex process that needs to be examined with an equally dynamic approach that has the ability to encompass theory and knowledge development. They feel that ethnographic techniques drawn from anthropology and adapted to an educational setting offer a promising approach. Ethnography has a holistic perspective which enables the inquirer to integrate and view the multiple dimensions of the process of reading. Naturalistic/responsive evaluation employs techniques in the form of naturalistic/responsive inquiry to examine the complex process of learning from subject matter in an exhibit, on a tour, or during a program. Interviewing visitors about what they learned from an exhibit, for instance, and systematically paying attention to "how" they learn from that content are ways of matching inquiry mode to the learning process in the museum experience. This article is highly recommended as food for thought to those interested in the interrelationship of museums, content, and learning.

Wolf, Robert L. and Tymitz, Barbara L. "Toward a More Natural Inquiry in Education." CEDR Quarterly (October, 1977).

Naturalistic/responsive evaluation is a promising approach for museum evaluation but doing it requires knowledge of the rationale behind it and the strategies it encompasses. This article is included here and intended as a solid base for understanding natural inquiry. It can be translated to a rationale for using natural inquiry in other complex environments such as museums. The authors are experienced naturalistic/responsive evaluators who have developed this view of natural inquiry through practice. They draw upon their experience as evaluators and cite how the natural inquiry framework developed and evolved during a national study of the impact of school television supported by the Exxon Corporation. Wolf and Tymitz write about the rigor of natural inquiry, its purposes, precepts, operational strategies, and importance. They begin by clarifying a common misunderstanding that natural inquiry is the same as field research in anthropology because both are conducted in natural settings. Field research, however, uses highly structured observations, highly focused interviews, carefully timed visits, and artificially orchestrated meetings which may portray skewed visions of a situation. In contrast, natural inquiry is open, exploratory, and expansive. "It means starting with an initial framework to be reworked, redesigned, or even discarded if necessary." It is a process aimed at uncovering idiosyncratic but nevertheless important stories told by real people, about real events, in real and natural ways. It depends on the gathering of data from interviews which build upon one another. These interviews should be aimed at seeking answers to questions that are judged valid and important to those seen as subjects of the study. The authors view these interviews as unobtrusive in the sense that the inquirer seeks to make people feel comfortable that their views are legitimate, uses the respondent's language, and addresses points that are salient. This creates interactions that are not viewed as intrusive, debilitating, and dysfunctional. Wolf and Tymitz discuss the use of two-person interview teams and the rigor involved in cross checking information to establish reliability and validity for clarifying the range of acceptable inferences that can be made. This is an important article and should not be missed by the museum educator who wants a complete concept of what naturalistic/responsive evaluation is all about.

II. Limitations of the Experimental Approach

Allen, T. Harrell. New Methods in Social Science Research. New York: Praeger, 1978.

The museum is not only a complex environment in the face it presents to the public but also in all the behind-the-scenes daily operations. It is an organization. As such, the intricate interdepartmental and personnel relations of the organization need to be taken into account as they interact within the museum environment and with the visiting public. For instance, the various departments may well have different definitions of what a museum is and a

variety of views about the museum's objectives. This is important to air because what a department believes about the definition and the visitor will affect exhibit and program design. Naturalistic/responsive evaluation lends itself well to "bringing out into the open" these views so that people in various departments can better understand each other. There is not, of course, much written about using naturalistic/responsive evaluation in this way for organizational management. Allen does verge, however, on calling for a naturalistic/responsive approach in this book, which is aimed at improving the policy-making process and doing large-scale social problem-solving. Chapter 1, "The Need for New Methodology," and Chapter 6, "Objectives Trees," are useful because of Allen's call for a shift in methodology and his practical suggestions on how to deal with organizational objectives. In Chapter 1 Allen gives an overview of what he feels is the failure of social sciences to handle large-scale problems because of 1) a reliance on scientific research as in physics or botany, 2) because of an over emphasis on what causes something rather than on the complex process involved, and 3) because of the failure to realize that social problems must be viewed holistically. Chapter 6 presents a way to deal with operational program objectives by using objective trees, a simple graphic outline for building a hierarchy of objectives. This objectives tree section may be particularly useful to museum staff when an occasion arises for them to consider what they actually do in the boundaries of their respective jobs or a day's work. Pay attention to these two chapters and just skim the rest of the book for ideas. This article should be read in conjunction with Tymitz and Wolf's Roles and Goals in the "Sample Studies and Reports" section of this bibliography.

Balaban, Richard H. "The Contribution of Participant Observation of the Study Process in Program Evaluation." International Journal of Mental Health, Vol. 2 (1973): 59-70.

Studying the outcome of a museum program is difficult, if not impossible. A program is on-going and ever changing. To do justice to studying programs, the methodology must allow for changes as the study progresses and, in fact, describe or relate these changes. Program designers can then judge for themselves whether or not they wish to continue in the direction described or shift to an alternative design. Balaban recognizes this change aspect of programs and argues that experimental/statistical studies are inappropriate in program evaluation because they generate uninterpretable data and concentrate attention only on the goals or outcomes of a program. Alternative methods are needed to gain information about the inputs and the process of programs. Without direct study of process, the actual content of the program can only be inferred. Because of the unstandardized way programs often develop, unanticipated consequences may rival, if not outweigh, intended ends. Process study is valuable in an exploratory sense because it asks, "What is going on here?" Of course, Balaban suggests that participant observation inquiry is well suited for understanding important characteristics of an intervention process, intended aims, and unintended consequences. Participant observation is the sociological version and term for what anthropologists may term field research strategies. To naturalistic/responsive inquirers this translates into interviewing and observation strategies. Consequently, Balaban is, in a

in a sense, arguing for the value of doing a kind of naturalistic/responsive evaluation when studying programs. This is good background reading and helps establish the value of the naturalistic/responsive approach.

Bronfenbrenner, Urie. "The Experimental Ecology of Education." Educational Researcher, Vol. 5 (October, 1976): 5-15. (More complete version in Teacher's College Record, December, 1976).

Bronfenbrenner reissues the call for inquiry to move out of the laboratory and into real-life educational settings. He argues that tightly controlled, laboratory-like experiments must be seen as distorting and are most fruitfully used as heuristic strategies, not as confirmation strategies. Bronfenbrenner introduces twenty propositions to guide studies in natural settings and provides three new validity concepts. He points out that experiments can only be valid when they are carried out in naturally occurring situations and when provision is made for assessing each participant's definition of the situation. Those choosing appropriate strategies to use in the museum context will be interested in the limitations of control and manipulation that Bronfenbrenner clarifies in this article.

Campbell, Donald, T. "Degrees of Freedom and the Case Study." Comparative Political Studies, Vol. 8, No. 2 (1975): 178-193.

For those who want a more solid rationale for naturalistic/responsive evaluation as appropriate to the museum experience, it can be found in this article. It gives a positive argument in a succession of such arguments heard in recent years in favor of a more qualitative approach in the social sciences. Campbell, a strong proponent for and a noted authority in statistical research design, alters his stance somewhat in this article as he points out some of the virtues of case study, a method bearing similarity to naturalistic/responsive evaluation. Campbell still presents his argument, as would be expected, in quantitative terms but the important point is that he views a conscientious, sensitive, self-critical case study as using hypothesis-testing principles similar to those in statistical research design. In this sense, he now views case studies as no less rigorous than many quantitative studies. This is a blow to the prevailing thought that case study lacks the rigor of many statistical procedures. It provides a possible basis for arguing that naturalistic/responsive evaluation is finally being viewed as the rigorous inquiry method that it is. Shifting a stance is not easy. Consequently, Campbell has his own ideas about how to improve case study method and enumerates a few suggestions based on various statistical procedures. Much of the technical language and reference to statistical techniques is not essential to get the gist of Campbell's position. It is best to simply read for the main ideas.

Campbell, Donald T. "The Social Scientist as Methodological Servant of the Experimenting Society." Policy Studies Journal, Vol. 2 (1973): 72-75.

Campbell's clarification of the limitations of experimental research methods should be of interest to museum staffs who must make planning decisions on the basis of evaluation studies. Campbell argues that the complexity of social settings and the large number of interactions that emerge from traditional research make the generalizations highly limited and not very useful to the social planner. Experimental research is helpful in saying what has been done, but not useful in proposing what is to be done. This may provide a useful perspective on the differences between naturalistic/responsive evaluation and traditional methodology.

Cronbach, Lee J. "Beyond the Two Disciplines of Scientific Psychology." American Psychologist, Vol. 30 (1975): 116-127.

Cronbach's arguments will provide individuals studying museums with important theoretical reasons for shifting away from experimental research to strategies which aim at providing valid information for specific policy and program-planning decisions. The objective of the experimental method is to produce general laws which explain human behavior. Cronbach discusses several factors which prohibit the achievement of this objective. These factors include the complexity of interactive effects, time as a source of interaction, and the invalidity of controlled experiments. The prohibitory nature of the factors Cronbach describes in producing laws of human behavior can be illustrated with examples from the museum environment. Reflect on the complexity of the different variables operating as a visotor examines a piece of sculpture. What s/he experiences is affected by background, education, how much sleep s/he got the night before, how close it is to meal-time, the other pieces of art surrounding the sculpture, lighting, what is on the label, and on and on. The statistical techniques used in experimental research were originally designed to explain the effects of one or two variables, such as varying amounts of light and water on the growth of plants, not the simultaneous interactions of many variables which characterize the visitor viewing the sculpture. The invalidity of the controlled experiment is also important to the museum decision-maker. Suppose we could find museum visitors enough alike in all variables but two: time spent viewing and educational background. Then we could do a controlled experiment. However, the result of the experiments characterizing these visitors' behavior would not be valid or true for other visitors with different interests, seeing the sculpture in a different order, at a different time of day, or with groups which change their perceptions. For many years experimental control and statistical inference have been the predominant methods of studying human behavior. Cronbach suggests that they share the stage with intensive local description which aims not to "amass generalizations" but pin down the "contemporary facts."

Glass, Gene V. "The Wisdom of Scientific Inquiry on Education." Journal of Research in Science Teaching, Vol. 9 (1972): 3-18.

Glass's article will provide insights into the type of inquiry that is fruitful for museums to undertake. The major question he poses is: Should educational research continue its attempt to build a science of education? Glass answers in the negative by pointing out over eighty years of failure to produce even a body of probabilistic statements that is recognized by the educational community as a core of knowledge. He blames this failure on the enormous complexity of the educational process and the rapid rate of obsolescence of the findings produced from controlled experiments. He suggests that educationists turn away from elucidatory inquiry which aims at building a science of education and toward evaluative inquiry which is characterized by description and is aimed at discovering solutions to immediate practical problems. Museum educators will want to apply these arguments to the field of museum evaluation where the majority of studies have used psychological theories and the method of the controlled experiment. This has resulted in findings which present probabilistic statements concerning one or two variables, such as time spent at an exhibit or percentage of behavioral objectives achieved. While these findings may be of interest, they do not serve decisions about practical problems concerning lighting, labeling, order of presentation, or concepts that can be portrayed by exhibits. But moreover, this method does not view what the visitor experiences in the museum as an integrated whole. Glass's article sets the stage for alternatives to the controlled experiment which are offered elsewhere in this bibliography.

Levine, Murray. "Scientific Method and the Adversary Model." American Psychologist, Vol. 29 (1974): 661-667.

Is the museum visitor really an "average" composite who stands 3.5 minutes in front of the Egyptian burial site, learns 57.2% of the behavioral objectives written for the slide show on early American Indians, and comes to the museum with 1.7 other people? For those interested in a holistic portrayal of the museum visitor's experience as s/he interacts with exhibits, architecture, and other people, Levine's arguments will provide a valuable perspective concerning the limitations of statistical methods which are currently used to evaluate museums. Levine argues that these methods are inappropriate for the study of human beings. He notes that while the inquirer using experimental design must assume that s/he does not interfere with the process being studied, this is usually impossible. Furthermore, breaking down behavior into discrete variables of movement, space, and time destroys the whole human event and makes the information obtained by statistical methods meaningless. Levine suggests some practices of the legal profession to replace the notions of reliability and significance so that the whole human event can be analyzed. Levine describes rules of evidence and criteria for decision making used in legal adversary proceedings. Museum personnel will want to consider how these practices might be used outside the adversary model which Levine discusses

in order to consider and analyze what visitors say about their own museum experiences and the general patterns of their behavior derived from observation. Levine presents a systematic way of using naturalistic/responsive information in decision making.

Lutz, Frank and Ramsey, Margaret A. "The Use of Anthropological Field Methods in Education." Educational Researcher, Vol. 3 (1974): 5-9.

Lutz and Ramsey present a case for the application of strategies used in anthropological field studies to the study of education. They argue that statistical studies of separate variables are excessively reductionistic. The field study strategies may provide a breakthrough for educational studies because they can uncover relevant variables and hypotheses. The authors discuss pre-planned hypotheses, the problems of gaining entry, the technique and processes of data collection, and ethical issues involved. The points the authors raise provide conceptual and theoretical arguments for the use of naturalistic/responsive evaluation in the museum setting.

Renzuli, J. S. "Confessions of a Frustrated Evaluator." In Curriculum Evaluation, edited by D. Payne. Washington, D.C.: Health 1974.

Renzuli discusses some of the issues and problems which plague evaluators using traditional controlled methodologies. The article clearly delineates many of the problems which the use of naturalistic/responsive strategies avoids in museum studies. Renzuli discusses the threatening nature of evaluations when only observable outcomes are considered outside of the context of institution constraints and intents. He also discusses the highly political relationship between evaluator and client. Renzuli comments on the unsuitability of using behavioral objectives to both plan and evaluate humanistic education. He argues that not only may a research paradigm by simplistic in evaluations and not explain the complexity of the process being studied, but the use of these methods to evaluate encourages a tendency to design programs around the limitations of research strategies. For example, in the museum this might result in docent presentations relying heavily on factual information since this is the easiest type of cognitive learning to measure with standardized psychological tests. However, an equally important but harder to measure cognitive objective might be helping visitors "learn how to learn" from the museum artifacts. Renzuli casts doubts about what standardized tests and other instruments actually measure. This thought-provoking article centers on many of the limitations of traditional controlled methodology and psychological measurement which makes naturalistic/responsive evaluation an attractive alternative.

Roberts, Marc J. "On the Nature and Condition of Social Science." Daedalus, Vol. 103 (Summer, 1974): 47-64.

Roberts's article will offer some insight into why statistical studies of museum education have not proved entirely useful or have not fully explained what actually goes on. Roberts argues that complaints about social science are justified because social scientists have inappropriately tried to imitate certain characteristics of natural science. Using traditional methods social scientists will not uncover many regularities, and in social sciences the role of "tacit" knowledge will be far greater than in the natural sciences. The museum educator will want to extend Roberts's arguments to a museum setting and not the tacit elements of visitor reactions to, for example, natural science exhibits, art collections, architecture, and docents. These tacit, subjective experiences are often not secondary considerations in a museum but the primary content of an experience. Roberts goes on to say that the subject matter of social sciences creates two basic difficulties: 1) the structural complexity and variety of the phenomena make detailed generalization difficult; and 2) value differences among investigators are often relevant to scientific choices. In the museum, the reader can see the difficulty in approaching subject matter with methods derived from natural sciences by pondering the structural complexity of one visitor interacting with one artifact. Background and interests of the visitor are operating as are the techniques used to display the artifact. Information on the structure of the phenomena must be connected to make sense, and this is extremely difficult to do using experimental design. Value differences of investigators may also shape what is studied in the museum. These factors affect the validity of the information obtained because they do not meet the assumption of statistical inference and do not relate to the holistic situation. Roberts suggests that social scientists need to construct their own notions of "good science," and their own methodological approach to their particular subject matter. This article is insightful and lays groundwork for more specific sources on naturalistic/responsive evaluation as an alternative to experimental design and statistical inference.

Collection Strategies

Naturalistic/responsive evaluation sounds deceptively simple since it is often discussed in terms of letting people "tell their own stories." It quickly becomes apparent, however, that useful data does not just happen. In naturalistic/responsive evaluation the instrument for data collection is the human evaluator and that person must be adept at effectively using collection strategies. Apprenticeship with another evaluator, demonstrations, and practice are the best ways to learn these strategies. But books and articles do provide ways to learn "about" collection strategies and to get a feel for what is important to the process.

This section is the "how to" section of this bibliography. The books and articles cited represent a number of fields and a variety of approaches. Since the staple collection strategies for naturalistic/responsive evaluation are interviewing and observing, most references deal with some aspect of one or the other. Careful attention has been paid to representing some of the less obvious but, nevertheless, useful skills such as notetaking or data organization. A number of articles reflect concerns such as whether or not an interviewee is honestly representing a situation or how an evaluator/observer can behave unobtrusively (if necessary) in a setting. Attempts have been made, whenever possible, to tie the suggested strategies or skills to the museum context.

Because a variety of fields are represented, there are numerous perspectives on how to go about collecting data. For instance, sociology, journalism, and educational evaluation each has a slightly different view about the purpose and reason for an interview. This must be kept in mind while searching out and reading the sources listed here. Each source has value if viewed in light of its contribution to collection strategies as they are practiced in naturalistic/responsive evaluation. In order to get a sense of naturalistic/responsive strategies, the reader is strongly urged to start with Tymitz and Wolf's Investigation Guide: Project IEP, which is near the end of this section.

Anderson, David, and Benjaminson, David. Investigative Reporting. Bloomington, Ind.: Indiana University Press, 1976.

Other sources may be more appropriate for the investigative slant in naturalistic/responsive evaluation, but Anderson and Benjaminson's treatment of records and presentation of write-ups may be useful in the museum setting. Chapters 5 and 6 explain and list records used by investigative reporters. This provides a starting point for the examination of how records could be used in the evaluation of museum programs. The write-ups at the end of the book are also interesting, particularly the Four Seasons Nursing Home Investigation. This displays the careful collection of many types of information

to get a full picture of a complex situation. Examination of the straightforward, tightly organized, journalistic writing style is also worthwhile. This is a good reference, but not suggested for cover-to-cover reading.

Benjamin, Alfred. The Helping Interview. 2nd ed. Boston: Houghton Mifflin, 1974.

The heart of any usable evaluation, for a museum or otherwise, is a narrative that "tells it like it is." In order to do just that, it is important for those who are affected by or involved in the museum environment to be given the opportunity to share their perceptions, thoughts, and feelings. The mainstay strategy for this type of evaluation reporting is interviewing, the subject of this invaluable little book. Used in conjenction with The Investigation Guide: Project IEP by Tymitz and Wolf, The Helping Interview sets the tone for doing the type of on-the-spot, as well as in-depth interviewing, that is required in a museum setting. Interviewing is a recognized art; but it is also a trainable art, and Benjamin's book comes as close to explaining the "how-to" of good interviewing as any of the various books on the market. The practical suggestions are excellent for the type of interview an evaluator hopes to achieve -- one with open communication, one with trust, respect, and sincerity. The author, himself an experienced interviewer, stresses the warmth and humanness of a good interview. The text especially helps the novice develop a feel for the interview -- its stages, timing, use of silence, questioning, ethics, recording, responses/leads, and leave-taking. Above all, Benjamin uses concise, concrete examples and writes with wit ("Like Caesar's Gual the interview is divided into three parts. Unlike Caesar's Gaul these divisions are not always clearly visible.") and charm. While the interview in naturalistic/responsive inquire is more an information-gathering strategy and a meeting of minds than a "helping" experience, in the sense that this term is used in guidance and counseling, there is much here that is golden and worth a careful reading. The interviewer, experienced or novice, in a museum will be well rewarded for the time spent locating, reading, and sharing this book.

Bernstein, Carl, and Woodward, Bob. All the President's Men. New York: Simon and Schuster, 1974.

This is a fine example of investigative journalism and interpretive reporting. It is not only a chronicle of one of the major political events of our time but also an account of how the reporters conducted their investigation. Notice how the reporters substantiate their statements by leading the reader through each step of the investigation, recording the conversations, and reporting the feelings of all involved. The reader is led to understand a complex political situation through a narrative report. This is a superb example of how investigative journalism is a process similar to naturalistic/responsive evaluation in which data are collected, hypotheses are drawn from the data,

references are cross checked, data are analyzed, and interpretations are given. Facinating reading for the would-be evaluator, but read from the perspective of naturalistic/responsive inquiry and of report writing. Try not to get caught in the political intrigue.

Brady, John. The Craft of Interviewing. New York: Vintage Books, 1977.

Anyone undertaking naturalistic/responsive evaluation is well advised to turn to literature by experienced notetakers, such as in journalism, and brush up on the skill. In order to accurately collect information and write a descriptive report including quotations from museum visitors or staff, the naturalistic/responsive evaluator must be adept at notetaking. It is not possible to over-emphasize the importance of this skill because notes become the raw data for the process of natural inquiry. In a museum notetaking is difficult and often inconvenient. Many interviews occur in rapid succession within the exhibit area or literally on the run in a museum tour. Jotting down the content of a program, not to mention the interviews done before, during the break, and after the presentation, requires speed and skill. Woe be to the evaluator who must record during a slide presentation or film when the lights are out! In-depth interviews of personnel in quiet office surroundings are no less difficult for the notetaker because such interviews may be lengthy and cover ideas rather than just superficial announcements. Brady has a valuable section (Chapter 7) in this book called "Notes on Notetaking." Written with humor and flair, it contains some delightful anecdotes about famous reporters' mishaps. That does not, however, mask the excellent tips. He discusses the mistake of trusting an untrained memory in place of taking notes, the value of some "notetaker-created" techniques, and the importance of instant editing. There are even tips on how to get a "full" quotation during a running conversation. Having a two-person interview team as in naturalistic/responsive inquiry is a big plus for notetaking because the interviewers can easily take turns writing. Nevertheless, Brady's chapter is really useful. The rest of the book may be skimmed due to its strong journalistic perspective on interviewing, although it is difficult to make it past the many colorful examples about famous journalists and their plights.

Bruyn, Sereryn T. The Human Perspective in Sociology: The Methodology of Participant Observation. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1969.

Though Bruyn writes from a sociological perspective, he provides one of the clearest and most comprehensive syntheses available of philosophy, principles, and procedures for use in the naturalistic/responsive evaluation of museum education. Bruyn maintains that "The social scientist cannot understand people scientifically in any adequate sense unless he understands them particularly, and for their own sake." Bruyn compares this perspective and the procedure

it implies to those of traditional empiricism which relies on experimental techniques. The book is divided into four sections, and "Part One: The New Perspective" sets forth axioms drawn from and describing a participant observer's experiences. Part Two carefully examines the polarity of perspective and theory between participant observation and traditional empiricism. In Part Three, Bruyn discusses the standards and techniques of the humanities which a social scientist must consider in constructing theory. The operational assumptions of the procedures of participant observation are examined in Part Four, and Bruyn explores their usefulness and applicability. This book moves from an exceptionally well-constructed rationale to specific procedures that can be used in the museum to study the impact of exhibits on visitors, docent techniques, or the question of why different people choose to visit a museum. Museum educators will want to keep in mind that Bruyn's discussion will not touch upon devising evaluations to meet the information needs of museum decision-makers, since this stance is peculiar to educational evaluation and a perspective not shared by sociology. However, the idea that people in their uniqueness must be studied in order to comprehend the whole is one of the tenets of naturalistic/responsive evaluation. Bruyn's arguments support this stance and his translation of the stance into practice is one of the best available. Bruyn uses a scholarly, yet clear, writing style, and this book is recommended as a comprehensive treatment of philosophy, principles, and practices in participant observation.

Buckner, H. Taylor. "Organization of a Large Scale Field Work Course." Urban Life and Culture, Vol. 2, No. 3 (1973): 361-380.

Buckner's article will be a helpful guide in the organization of a large-scale naturalistic/responsive evaluation in a museum. Buckner shares the adventures of providing nearly 100 undergraduate students in sociology with the chance to do real field work while using their experience to build an ethnographic data file on prostitution, gambling, and night-life in Toronto. Buckner lists and explains his organizational and training strategies. It is doubtful that bail money will be an important consideration for a museum evaluator; however, several of the strategies are quite adaptable to museum study. A newsletter was used to share tips, give field assignments, provide examples of field notes and build a feeling of camaraderie by publishing anecdotes and experiences from the field. "Serious" students were recruited by scheduling the class at an unpopular hour, 8:30 on Friday night. Buckner also explains how personal data was used to select field coordinators and form inquiry teams. He concludes with an outline of field assignments which enabled field workers to identify observation spots and later to specify goals of the team's observations. Amusing incidents are included to give the reader the flavor of this ambitious undertaking, and show the pay-off of careful planning when large numbers are involved in an evaluation.

Coles, Robert. "Part I Method." Children in Crisis. Children in Crisis, Vol. 1. Boston: Little, Brown and Company, 1967.

This beautifully written chapter in the first volume of Coles' series captures the essence of naturalistic/responsive strategies (though Coles does not use this term) and reveals the richness of the information gathered via these strategies. Coles tells of his own background and how he became involved in this study of the reaction of children in the South to stress as their society underwent change. This presentation of background is part of Coles's method as he gives the reader an idea of the initial biases and perspectives of the man gathering information. He explains that his strategies of open-ended interviewing, repeated over long periods of time evolved as he tried to guard against simplistic interpretations of the situation. Coles discusses the many groups he became a part of in order to get a multidimensional understanding of what was going on in the South and this crucial period. In order to gain access to black homes, student protest groups, and segregationist organizations, Coles used respected group members, and he explains how this was done. He describes his documentation procedures including notetaking, memory, and taperecording, and how these sources were carefully analyzed and edited to reveal insights. Coles concludes this chapter with comments on how the actual dialogue of the people in the situation was often the most compelling and understandable information he could find, and how he had carefully protected the anonymity of these people who had helped so much in providing a protrait of a unique section of the country in a time of change. However, the reader will want to realize that there are differences in the purpose of Coles's study and the purpose of naturalistic/responsive evaluation in a museum. Coles uses participant observation and interviews to get an understanding of a very complex situation. The evaluator in a museum will use similar strategies, but the information is gathered for the purpose of serving museum decision making. Thus, information gathered by the evaluator must be of the type which can be directly applied to practical problems. This is simply a difference in the diciplines of social psychology and evaluation, but not necessarily in the techniques used to gather information. With this in mind the reader can profit by examining Coles's strategies, and the entire study which is an excellent model for understandable and readable communication.

Coles, Robert. "II Method." The South Goes North. Children in Crisis, Vol. 3. Boston: Little, Brown, and Company, 1971.

The naturalistic/responsive evaluator views his relationship with visitors and museum personnel very differently than does the traditional evaluator. Nowhere is the essence of this role and the orientation it requires better captured than in the method section of Coles's study of families who moved from the rural South to the urban North. Coles reveals his perceptions of this role as he answers an angry fourteen year old who charges that Coles, a well-educated, white psychiatrist, will never be able to understand the situation of a ghetto black. Coles acknowledges the partial truth of the youth's statements and then explains how he sees his role as that of a learner, with the people and situations as his teachers: "But one can try to learn, and that way come as close

as possible to the people who are one's teachers . . . one can try to 'tell other people' as much as possible . . ." about what has been learned. It is important to contrast the stance that Coles presents where the people being studied guide the inquirer's perceptions with the traditional experimental stance where as much distance as possible is placed between the inquirer and the subject. In a museum where so much of the experience is dependent on the background and intents of the visitor as s/he interacts with complex stimuli, the role which Coles describes is invaluable. Coles compellingly presents his reason for this and other strategies as he does in the method sections of each volume of Children in Crisis. This study is so well-written and facinating that it will be difficult to stop after this one chapter. Don't. The entire book provides a superb example of how interview, observation, and other naturalistic strategies can be used to gather important information, and how natural language of people can be used to give a reader a compelling picture of a situation.

Cottle, Thomas J. "The Life Study: On Mutual Recognition and Subjective Inquiry." Urban Life and Culture, Vol. 2, No. 2 (1973): 334-360.

Many of the experiences in a museum are not designed to give a visitor facts and information, but an aesthetic and/or emotional experience. Consider viewing a great work of art or grasping the value system of a civilization far away in time or space. These are subjective experiences. At odds with this type of experience is the conventional, objective, and removed role of the social scientist. Cottle's article has been included to give museum educators a view of this tension as Cottle reveals how he learned to value and use subjectivity and personal relationships as he studied poor families in Boston. Though fascinating, the subject of Cottle's study is not as important as how the very purpose of the study changed as subjectivity and friendship became part of his process. Cottle discusses his concerns about role, objectivity, personal bias, and purpose. His sensitive discussion begins with the topic of how he selected individuals to study, or often, how they selected him. Cottle is disturbed by the roles imposed on himself and his subjects: rich-poor, researcher-subject. He regrets the distance between people that the political system imposes. He also comments that while objective analysis in some ways expands learning, it also blocks important feelings and human contact which arise in this type of study. Cottle traces the change in his own attitude about the purpose of the study. At first his purpose was to compare poor and middle-class families. Later he was trying to present a true picture: the fine minds he found; the acts of courage and of ineptitude. It is hoped that the museum educator will see how Cottle's mode of inquiry became subjective and empathetic to match the human environment he studied. In the museum this translates into matching the study of aesthetic and emotional subjective experiences with similar modes of inquiry.

Davis, Fred. "The Martian and the Convert: Ontological Polarities in Social Research." Urban Life and Culture, Vol. 2, No. 3 (1973): 333-343.

Should the naturalistic/responsive evaluator stand outside the frame of reference of museum staff and visitors in order to offer unbiased information? Should the evaluator become immersed in the frames of reference of staff and visitors to understand the museum from their perspectives? Davis uses the ingenious metaphors of the "Martian and the Convert" to explore the objectivity-subjectivity dilemma faced by all social scientists. Davis characterizes the Martian stance as attempting to stand outside the subject of study, divesting oneself of cultural assumptions, and using some "higher order" intelligence to see around the everyday assumptions held by those within the world being observed. This stance in museum evaluation can be illustrated by the evaluator who uses carefully designed psychological instruments such as questionnaires and pre-determined categories to code visitor behavior numerically so that no personal bias or subjectivity can color his/her findings. In contrast, the Convert stance leads the observer to immerse himself/herself in the world of his/her subjects and take on an attitude of advocacy. An extreme example of this position in a museum might be an evaluator who becomes so "dedicated" to the idea of participatory exhibits proposed by a few members of a staff, that s/he only looks for visitor reactions that support the success of this technique. Davis notes that students are usually advised to take one extreme stance or the other. He lists the dangers of each, and advises a careful middle-of-the-road. Naturalistic/responsive evaluation requires an evaluator to shift perspective from that of a casual museum visitor, to that of a scholar using the museum's artifacts for research, to the many perspectives of the staff. Therefore, this middle-of-the-road stance is a useful concept. In a sense, the naturalistic/responsive evaluator must become converted to all the perspectives he encounters, however conflicting, in order to really understand them. Then s/he must shift to the Martian stance to use the understanding and devise a holistic portrayal of the situation which will aid museum decision-makers. Davis's article is general to all social sciences, but museum educators will want to think about how naturalistic/responsive strategies can help avoid the dangers of either extreme stance while utilizing the strengths of both. The author relies a bit on jargon in this article, but the important ideas presented make extra effort on the reader's part worthwhile.

Dean, J. P., and Whyte, W. F. "How Do You Know If the Informant Is Telling the Truth?" Human Organization, Vol. 17 (1958): 34-44. (Also see the reprint in Issues in Participant Observations: A Text and Reader, edited by George McCall and J. C. Simmons. Reading, Mass: Addison-Wesley, 1969.)

For those beginning to do naturalistic/responsive evaluation, there may be concern about whether or not to trust what an interviewee says. Museum staff may want to know if visitors to an exhibit or program are really telling the truth about how the museum affects them. There are those who question the credibility of interview data. This article deals admirable with this concern.

Dean and Whyte argue that the question about whether or not an interviewee is telling the truth is a rather misleading question. They explain that we cannot possibly tell what a person "really" believes from an interview and that we should not mislead ourselves into thinking so. They suggest that an interviewee makes both subjective and objective statements during the course of an interview. The interviewee's statements merely reflect his/her perceptions. Therefore, the naturalistic/responsive evaluator should more appropriately ask: "What do the interviewee's statements reveal about his/her feelings and perceptions? What inferences can be made from those statements about the actual environment or events s/he has experienced?" This is an excellent article to read for getting a sense of the value of interview data, for dispelling fears of doubt about using that data, and for reinforcing the worth of that data for making a descriptive account of a museum's impact.

Dexter, Louis Anthony. "Role Relationships and Conceptions of Neutrality in Interviewing." American Journal of Sociology, Vol. 62 (September, 1956): 162.

Dexter offers useful advice to which interviewers will want to pay special attention in interviewing museum visitors. He points out that despite the interviewer's attempt to appear neutral, s/he is often identified with the values of some real or supposed reference group. Dexter suggests producing a situation of "neutrality on the interviewee's side" by using language, philosophy, and manner of the interviewee. He uses examples from sociological studies of political and ethnic groups to illustrate his points. In the museum this technique is of special importance when there is some obvious difference in age, educational background, socio-economic status, or cultural outlook. Thus, the evaluator must attend to dress, speech, and ideas of the individual he interviews so that he can appear neutral in the eyes of the interviewee.

Dodge, Martin and Bogdan, Robert. "Participant Observation: A Promising Research Approach for Educational Technology." Phi Delta Kappan, (September, 1974): 67-69.

Past studies of exhibit impact, docent programs, and traffic patterns in museums have relied heavily on statistical techniques. This brief introductory level article will give museum educators alternative strategies to study such topics. Dodge and Bogdan deride the overuse of theories and experimental designs from psychology which often impose inapplicable ideas onto an education situation. They suggest participant observation as an alternative. In this strategy the inquirer becomes involved in a setting and uses observations and interviews to derive explanations of the processes under study. Thus, a theory or explanation is derived from the actual situation rather than being imposed from outside. Dodge and Bogdan provide examples of field notes from a study of media specialists in a high school setting to

illustrate their suggestions. This article is a good place to start learning about the participant observation strategy which is used in naturalistic/responsive evaluation, but the reader should keep in mind that the strategies themselves, not what Dodge and Bogdan used them to study, are the important elements in this article for the museum educator.

Douglas, Jack D. Investigative Social Research: Individual and Team Field Research. Beverly Hills, Calif.: Sage, 1976.

Douglas describes strategies used in sociological studies which can also be valuable in studying visitor behavior and illuminating museum staff intents in exhibit design and program planning. An important aspect of Douglas's presentation is his "conflict paradigm" in which he asserts that most truth in a situation is hidden, either intentionally or unintentionally. His strategies and techniques deal with getting into a setting and rechecking information to deal with misinformation, evasions, lies, and fronts. The reader is cautioned against a quick acceptance of this extreme position, but examining the strategies themselves can be profitable. Often information is hidden unintentionally because people may not realize the importance of all the reasons for a decision, or they may not even be fully conscious of all the reasons. For example, an exhibit designer may offer an aesthetic reason for low lighting levels in an exhibit area when this aesthetic reason was precipitated by an antique wiring system. A teacher may explain that he did not prepare his students for a tour because he wanted them to have a fresh approach to a museum experience. However, it can be interesting to find out that this same teacher never received the carefully prepared pre-tour information sent out by the museum because it was misplaced at the school. Both reasons in each case may be equally "true," but a decision seldom is reached because of one "reason." Thus, Douglas's strategies of rechecking, longitudinal interviewing, and verifying through multiple sources are very important in museum studies. Two other parts of this book will also be of interest to the reader. In Chapter 1, Douglas provides a very approachable philosophic argument for the multiple "ways of knowing" encompassed in the naturalistic/responsive approach to evaluation. He also points out that the limited viewpoint in traditional scientific method is based on a 19th-century metaphysics, which has long since been rejected by leaders in chemistry and physics, but is still clung to tenaciously by some physical and social scientists. The book concludes with one of the few descriptions available of designs using teams of inquirers to provide multi-perspective, representative information for policy-decision applications. As a whole this book is a very useful source for rationale, strategies, and techniques, and it is not necessary to accept Douglas's conflict paradigm in order to apply the strategies he discusses in museum settings.

Gordon, Raymond L. Interviewing: Strategy, Techniques and Factors. Homewood, Ill.: Dorsey Press, 1975.

Since interviewing is such a key strategy in naturalistic/responsive evaluation, it is important to develop and refine it. Practice and experience are the best ways to learn to interview. However, books can provide valuable insights. The two best sources on interviewing in this bibliography are The Investigative Guide by Tymitz and Wolf and The Helping Interview by Alfred Benjamin. Another useful resource is this book by Gordon. It is one of the most comprehensive books available on the subject. It gives just about everything you ever wanted to know about interviewing, but it is also texbook dull. Much of the information has been collected from working with students at Antioch College who, over a period of years, applied interviewing skills in their work-study jobs. Because there is an emphasis on training, the book provides a series of fourteen laboratory problems designed to give experience in different interviewing skills. Gordon gives an overview of interviewing by discussing how it is related to other methods of data collection. The context of interviewing is examined in depth. The author notes how specific situational variables and the larger social context can affect the quality of the data. The last four sections are a practical, "how-to-do-it" guide. Topics include selecting appropriate respondents, structuring the interview situation, noting verbal and nonverbal dimensions to the interview, probing to meet informational objectives, and evaluating the quality of data. There is also a very complete bibliography included. Locating really good sources on interviewing in the naturalistic/responsive style is difficult. For those in the museum developing this skill, Gordon's book is a highly recommended source after a thorough study of the sources by Tymitz and Wolf and Alfred Benjamin. Use the book as a resource and pick and choose the most useful selections.

Greer, Blanche. "First Days in the Field." In Sociologists at Work, edited by Phillip E. Hammond. New York: Basic Books, Inc., 1964.

This is a gem of an article for the museum educator who wonders how the interviews and observations done by a naturalistic/responsive evaluator enable him or her to come up with valid explanations of what goes on with people in museums. What does a naturalistic/responsive evaluator think as s/he begins to listen to and observe people in the museum? How do perceptions the evaluator has begin to change as the points of view of visitors and staff members become known? Greer provides a first person account which will answer these questions as she analyzes and presents selections from her field notes gathered in the first few days of a sociological study of entering freshmen at Kansas University. It is a useful shift for the reader to imagine the similarities between Greer's experiences and those of an evaluator coming in to study a museum. She considers her role, developing empathy, the outcome of anticipated problems, and the development of working explanations for what she sees and hears. Particularly interesting is her role shift in working with this population, and her growing empathy for these students she expected to find silly and overly dramatic. Field notes also reveal her surprise when many expected problems fail to

materialize. Greer uses field notes to trace three stages of hypothesis development: yes/no propositions, negatively stated hypotheses, and two-step formulations which develop into rough models. She also traces the slow accumulation of data which leads to the identification of themes. This article shows how the subjectivity and preconceptions of the observer work toward, not against, a real understanding of a situation. This is one of the few accounts of field work which gives a picture of what really goes on with other people and in the observer's head. Those unfamiliar with the observation and interview strategies which Greer uses will be fascinated and surprised to follow her developing understanding of this situation. This is an important article because Greer has really captured the "feel" of naturalistic/responsive strategies.

Pelto, Pertti J. Anthropological Research: The Structure of Inquiry. New York: Harper and Row, 1970.

Naturalistic/responsive evaluation seems very similar to field research in anthropology because both are conducted in natural settings. However, inquirers from anthropology often do traditional field research with preconceived questions that force a structure on a study which may be irrelevant and insensitive to the actual situation. Naturalistic/responsive inquiry, on the other hand, does not reduce the data to fit a structure before entering the situation. It is aimed at seeking answers to questions that are valid and important to those who are the object of the study. Nevertheless, anthropology has a long history of doing qualitative methodology using a number of strategies employed by the naturalistic/responsive evaluator. It is useful to the museum educator seeking to learn this type of inquiry to have a sense of the strategies and tools anthropologists have developed over the years. This can be a valuable source of comparison or extension. Pelto's book gives the anthropologist's perspective. This provides some food for thought about which strategies are of value to the naturalistic/responsive evaluator. The author says that there is little training concerning methods in the field of anthropology and that this book is an outgrowth of that need. Pay particular attention to Chapter 5, "The Tools of Research," and Chapter 6, "Counting and Sampling." The first lists and discusses the following data collection strategies: participant observation, key-informant interviewing, collection of life histories, structured interviews, questionnaires, ratings and rankings, the semantic differential technique, projective techniques, other psychological research instruments, unobtrusive measures, technical equipment in field work, multi-instrument research. Chapter 6 gives examples of counting in ethnographic reports, problems of representativeness, and patterning and sampling. The rest of the book may be skimmed for useful information. This is worth reading; however, it should be read with the earlier distinction between field research and naturalistic/responsive inquiry held firmly in mind so that all examples can be judged as to their value for naturalistic/responsive inquiry.

Rich, John. Interviewing Children and Adolescents. London: Macmillan, 1968.

Interviewing a child or an adolescent as a visitor to an exhibit or as a participant on a tour is especially difficult. Both children and adolescents attempt to be cooperative but they often cannot tell us what they mean or understand what information an interviewer wants from them. Consequently, when a child or adolescent is the interviewee, some special insights are necessary on the part of the adult interviewer. It is difficult to find good material that addresses this subject. This book seems to be a rare exception. The first three chapters deal with interviewing in general, although there is emphasis given to the problems encountered with young interviewees. The remainder of the book is related specifically to interviewing children. Rich believes that most people learn only the interviewing approach for their discipline, such as psychology, education, or journalism. This is often unfortunate because these approaches may not transfer to other situations. Therefore, this book takes a more general approach in the hopes of generalizing the interviewing of children for a variety of situations. Rich defines the interview and discusses how to begin, what people's roles are, how the adult and child both view the interview, and how adults and children often misunderstand each other. He also discusses motivation, communication, the words that we choose to use and how to use them, the often forgotten nonverbal signs of communication, and the act of observing children. He believes that if we place value on how something makes an impact on children then we should draw inferences from the things a child sees in a situation and not the things that we see ourselves. For instance, within a museum setting, we should judge the effect of an exhibit by what children tell us and communicate nonverbally. Nonverbal communications may include time spent viewing or facial expressions of interest. We should not revert to assigning children's interests on the basis of our present interests or on the basis of what we remembered liking as a child. This book is very readable, has excellent examples, and seems to be a "one of a kind" resource. It is worth a careful reading in preparing for any museum evaluation involving contact with children and adolescents.

Rippey, Robert M., ed. Studies in Transactional Evaluation. Berkeley, Calif.: McCutchin, 1973.

Naturalistic/responsive evaluators are sensitive to the fact that often promising technical and material innovations are not accepted because of how they affect personnel within a system. For example, there may be resistance to the adoption of tape recorded tours for visitors because it will change the role of part of the museum staff from actively leading tours to handing out and logging equipment use. Or the collections department of a museum may strongly oppose participatory exhibits because they fear artifacts themselves and their own position in the museum will become less important. Transactional evaluation shares this concern and therefore focuses on social and organizational functions rather than on materials and techniques. This book is a collection of articles about transactional evaluation. Topics include a description of the model, applicability of the case study technique, difficulty of getting acceptance for the relevance

of this perspective in evaluation, and description of a large-scale field study, and a discussion of the client/evaluator relationship. The perspectives offered in this book clarify the broad scope of evaluation issues in a complex system such as a museum. Rippey's introduction is a good place to start reading this book because it specifies where a reader can find topics related to particular areas of concern. Highly suggested articles include Thorne's "Deficiencies of Statistics in Educational Evaluation," Hoke's "The Evaluator as Truth Seeker," and House's "The Relevance of Evaluation."

Roberts, Joan I. and Akinsanya, Sherrie K., eds. Schooling in the Cultural Context: Anthropological Studies of Education. New York: David McKay Company, Inc., 1976.

Museums are institutions affected by the cultural surroundings. The environment affects the perspectives represented in exhibits, the types of programs presented for the general public and surrounding residents, as well as the type of training needed for docents dealing with various groups. Consequently, the museum educator, while evaluating exhibits and programs, must view the museum experience in light of the cultural environment. In this book the collection strategies in anthropology are transferred to educational settings. There is an emphasis on how the school fits into the larger cultural context. The selections presented offer what the editors hope is an overview of an emerging field, anthropology of education. The introduction, which summarizes each section, and the first article, "Criteria for an Ethnographic Approach to Research in Schools" by Harry Wolcott, are the most valuable to naturalistic/responsive evaluators. Wolcott summarizes the key characteristics of anthropological field study and analyzes the problems that arise in ethnographic studies in schools. According to him, the ethnographer's unique contribution is his/her commitment to understanding and communicating a situation "like it is." Wolcott's criteria for weighing the worth of the ethnographic approach are: appropriateness of the problem, appropriateness of the ethnographer, appropriateness of the research climate, and appropriateness of the expectations for the completed study. For naturalistic/responsive evaluators wishing to obtain a "picture" of what is happening in museum exhibits, tours, and programs, it is possible to pick and choose adaptable collection strategies in this book that aid in producing that picture. A little time spent on reading the introduction will lead to articles in the book of particular interest.

Schatzman, Leonard and Strauss, Anselm L. Field Research: Strategies for a Natural Sociology. Englewood Cliffs, N.J.: Prentice-Hall Inc., 1973.

This is a suggested introduction to many of the strategies practiced by the naturalistic/responsive evaluator. In their introduction, the authors specify that these strategies are for the inquirer who is dealing with the contingencies and flow of the field and not with a linear specific design such as those used in experimental research. Chapters deal with entering a setting, organizing,

watching, listening, recording, and analyzing. However, the authors wisely suggest that the entire book be scanned first and only later read chapter by chapter. This will prevent the reader from getting the impression that these strategies are used one at a time or in isolation. Schatzman and Strauss illustrate the strategies with examples from sociology, but the value of these practices generalize to the evaluation of museum topics. Museum educators will be able to transfer these strategies most clearly by relating them to visitor studies.

Scott, W. R. "Field Work in a Formal Organization: Some Dilemmas in the Role of Observer." Human Organization, Vol. 22 (1963): 162-168.

Being an observer and using observational data is often a fruitful strategy for learning about the impact of an exhibit or program. However, undertaking the role of observer requires some thought about the delicate balance between the observer and the expectations of those being observed. Scott provides some insights into this balance by writing of his own personal experience as an observer while doing a graduate study of a medium-sized county welfare agency. He reports that a general problem confronting the observer upon entering a situation is the observer's status. The observer appears to have no job, which may create some envy on the part of staff or curiosity on the part of others. Therefore, extablishing purposes is clearly necessary. He also explains that a certain amount of anxiety probably always accompanies the entrance of an observer no matter what the purpose may be. Of course, there are facilitating factors as well. People are generally anxious that the observer obtain what they consider a "true" picture of their activities and feelings are, therefore, willing to help the observer do a good job. The article includes a discussion about what Scott considers, in retrospect, to be the role attributes of an observer. He feels that the observer should be impartial as much as possible so that all being observed have approximately equal access to his/her attention. The observer should attempt to be nonjudgmental in his/her reactions. While the observer does need to establish some credibility, s/he should not pose as an expert because s/he is there to learn of how others perform and perceive their activities. Finally, the observer should be passive in the sense of not seeking to disrupt or overly influence the behavior of those under observation. This article is short and readable. It is worth spending some time on, especially to help focus some thoughts and signal some concerns to be sensitive to before attempting any observational strategies within the museum setting.

Sherwood, Hugh C. The Journalistic Interview. New York: Harper and Row, 1969.

As the name implies, this particular book is specifically for the news reporter or journalist. Nevertheless, it is easy reading, provides interesting examples about famous reporters and gives some useful hints that can be adapted by the

naturalistic/responsive evaluator. Especially useful is the section on how to prepare for an interview and how to record an interview. The advice on interview protocol and background reading is generally heeded for a good interview. It is equally important advice to follow even if museum educators interview people already within the museum. Sherwood has, of course, included more good advice on the trials and tribulations of notetaking and recording. This section should be used in conjunction with the notetaking section in John Brady's The Craft of Interviewing to help round out the whole subject of notes, notetaking, and recording. Spend some time looking at the sections on how to prepare for an interview and how to record the interview. The rest of the book can be skimmed.

Stake, Robert E. "The Case Study Method in Social Inquiry." Educational Researcher, Vol. 7, No. 2 (1978): 5-8.

While the case study methodology, which involves naturalistic/responsive strategies and narrative reporting, is used widely in Europe, it seems to have been replaced in the United States by experimental/statistical research reports. The difficulty with the statistical report is not only its narrow focus but also the technical language in which the results are reported. It seems to take a highly trained professional in experimental design to interpret the results. There is even some question as to whether the trained professional can accurately read the report or converse in the jargon. For this reason, Stake urges the revival of the case study method in which real and natural language is used to convey thought. He views the case study as a method by which to communicate in a way so that those using the case study can better understand complex social programs. Communication to those who will use the report is the central idea here. Stake defines case study and lists the features: descriptions that are complex and holistic; data that are often gathered by personal observation; a narrative writing style with quotations and illustrations. There is a clear rationale for why the case study method in museum evaluation would mean understandable reports with narrative write-ups that would make it possible for museum personnel to make decisions regarding exhibits, programs, staff, and museum events. This article is good background reading for the would-be naturalistic/responsive evaluator and it helps explain the type of reporting exemplified as sample evaluation reports included in this bibliography.

Tymitz, Barbara L. and Wolf, Robert L. Investigation Guide: Project IEP. Rosslyn, Va.: Nero and Associates, Inc., 1977.

It has been reported that the late Bing Crosby casually started a new motion picture by inquiring, "Where do I stand and what do I say?" Most interviewers would be happy for such a simple guide to the interviewing strategy. It is doubtful, however, that such a simple guide exists. In its absence, there is this easy-to-read, brief, but comprehensive guide. Tymitz and Wolf have had extensive experience in the use of interviewing both in and outside of the

museum field. In this guide they provide the basis for the interviewing strategy as it is used in naturalistic/responsive evaluation. Most importantly, they deal with interviews conducted by two interviewers conversing with one respondent. This is a style of interviewing which is rarely mentioned in the literature but which has proven in practice an effective, if not superior, technique. They write with a sensitivity toward what is required in training people to use interviewing as a collection strategy by outlining what to do; when, where, and how to do it; and what to expect. The section on interviewing is sandwiched between sections on a specific evaluation used for IEP. Therefore, concentrate on pages 6-44. These pages cover: 1) the general premises and procedures of naturalistic/responsive evaluation; 2) interviewing strategies; 3) essential skills such as listening, observing, questioning, notetaking, using the data, reporting and debriefing processes; 4) the participation of the interviewee; and 5) important points to consider in interviewing. This is the cookbook for the naturalistic/responsive evaluator who wishes to expand the use of interviewing strategies. As such, it provides some facinating insights for those who have given little thought to the complex process of interviewing and some alternative techniques and valuable hints for refining the art for those who are experienced. It should be the first source used and studied by a museum evaluator before attempting interviewing.

Wax, M. and Shapiro, L. J. "Repeated Interviewing." American Journal of Sociology, Vol. 62 (September, 1956): 215-217.

Repeated interviewing of staff members is a useful strategy, particularly in identifying contextual issues which relate to the dynamics of the museum. Repeated interviewing is also of value in answering questions of why some visitors return to the museum again and again, and what effect early introduction to the museum has on the future visiting patterns of school children. In this brief article, Wax and Shapiro outline the advantages of repeated interviewing per se. They point out that this procedure enables the assignment (or reassignment) of the proper type of interviewer who is able to establish rapport with an individual. Furthermore, the character of the communication changes when the two are no longer strangers: respondents feel more at ease and freer to communicate and the interviewer can ask straightforward questions. This technique also enables the interviewer to quickly, by phone, go back and pick up critical pieces of information during the analyses stage. Finally, after a respondent's attention has been drawn to a matter, s/he often has time to draw up further information for the next interview. Wax and Shapiro use interesting examples from their study of what people get from the Sunday "funnies." Strategies and techniques discussed are well suited to the museum setting.

Webb, Eugene J., et al. Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago: Rand McNally, 1966.

How can a museum person study exhibit impact? Interviewing is perhaps the best data collection strategy for learning of exhibit impact. However, it

should be obvious that the evaluator may want to round out that data by noting, in the fashion of Sherlock Holmes, clues to visitor behavior. For instance, wear marks on carpets or railings suggest popular parts of an exhibit. The authors discuss these and other unobtrusive measures in this book, which has almost become a classic in how to collect data through means other than an interview or questionnaire. The authors argue that conventional data collection strategies create as well as measure attitudes. Their main complaint, however, is with the over-reliance upon these methods. The various chapters deal with types of unobtrusive measures. Studying physical traces such as wear marks on stairs is one way to judge past behavior. Archival data such as actuarial records, votes, sales records of a company, and various other records of an organization provide a wealth of information to be examined and evaluated. Observation, both in the intrusive and nonintrusive way, is discussed in the final chapters. There are many interesting and provocative examples. This book has played an important role in expanding the concept of social science data. It is valuable to museum evaluation because it provides alternative evaluation strategies applicable to the museum setting. Highly recommended.

Analysis Strategies

The division in this bibliography between collecting information and analyzing information is an artificial one. Even before interviews and observations begin the naturalistic/responsive evaluator must make analytical decisions concerning who or what s/he is going to first observe. As data collection continues the evaluator allows what is seen and heard in the museum to guide where to look next for promising explanations and connections which will explain the whole situation. Finally, analysis must be done to report and characterize findings.

As a bridge between collecting and analyzing information, we have cited several sources in the area of "Sharpening Perspectives." These books and articles deal with the types of mental processes which characterize the analysis of naturalistic/responsive information. These include shifting perspective, problem solving, attending to inconsistencies in a situation, and deriving general patterns which explain the specifics. These sources are suggested as experiences and practices in the type of thinking which facilitates understanding of what goes on in a museum.

The second area of this section is called "Data Analysis Techniques." Most of these books and articles are first person accounts of how practitioners in various disciplines do data analysis. Lofland's editorial introduction is a good place to start because he gives three characteristics of the process. These characteristics will give the reader a handle on why others proceed as they do. The characteristics are also useful in looking at the sample studies and reports in the following section.

But the most important thing to keep in mind when looking at these techniques is the goal of data analysis. This goal is well described by Robert Stake in the following statement:

> "A <u>full</u> evaluation tells a story. . . . It tells what happened. It reveals the perceptions and judgments that different groups and individuals hold--obtained, I hope, by objective means. It tells of merit and of shortcomings. As a bonus it may offer generalizations ('The moral of the story is . . .') for the guidance of subsequent educational programs."*

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*Stake, Robert. "Toward a Technology for the Evaluation of Educational Programs." In Perspectives in Curriculum Evaluation, edited by R. Tyler et al., Chicago, Rand McNally, 1967.

I. Sharpening Perspectives

Boulding, Kenneth. The Image. Ann Arbor, Mich.: An Arbor Paperbacks, University of Michigan Press, 1961.

One of the things an interviewer talking to museum visitors and staff must be able to do is analyze negative (nonproffered) information. Boulding's book offers a delightful lesson in this art. He sets the reader's eyes and ears open to observe what is hidden based on what is not said, and explores why one set of information is selected as a response rather than another set. This technique will prove useful to the evaluator talking to people in an exhibit area. Suppose an interviewer asks the mother of two preschool children why she chose to bring the children to the museum on Saturday morning. She explains how she selects "quality" and "educational" experiences for her children rather than the "junk entertainment" offered elsewhere in the community. The evaluator must ask himself what this response tells about how the mother sees her role, her educational background, and the type of audience the museum is attracting. The interviewer will want to follow up on any ideas s/he has about what is concealed in this statement: the mother's own preference for the museum experience or her reaction to the evaluator as a representative of the museum community. Often, what is not said by a museum visitor is as important as what is said. Boulding's book is not only enjoyable and thought provoking but helps the interviewer become more sensitive to the meaning between the lines of a conversation.

de Saint Exupéry, Antoine. The Little Prince. New York: Harcourt Brace Jovanovich, Inc., 1971.

Occasionally a writer will capture the essence of a process. When this happens, reading the story he tells becomes a mental exercise which integrates the thoughts and concepts inherent in that process. The Little Prince is such a book. It is a deceptively simple story which demonstrates an evaluation process on the allegorical level. Thus, the fable in the vein of Huckleberry Finn or Alice in Wonderland can be read on an adult level. The Little Prince's quest is not really different from the naturalistic/responsive evaluator's search for themes and relatedness of complex issues within a situation. The narrative leads the reader through a problem-solving process, as well as an exercise in how to shift point of view. This ability to look at situation anew from a fresh perspective is a skill any good evaluator must cultivate. A delightful, touching little tale, The Little Prince can be read, felt, and shared. It is a painless way to sharpen the senses and begin to get a feel for the kind of creative thinking and complex analytical processes an evaluator must practice in a museum environment.

Keen, Sam Telling Your Story. New York: Doubleday, 1973.

This small book will provide a sensitizing experience which will give the reader a new set of handles and questions with which to see, hear, and tell the story of people in museums. In both collecting and analyzing information, the naturalistic/responsive evaluator is required to constantly sift perspective from the point of view of museum staff to that of museum visitors. The evaluator must look for explanations and themes which will unite these differing perspectives so that the "story" of the museum can be told. Those planning to interview and observe in museums should be more sensitive to major themes after reading Keen's book. Keen presents his notion of what is important, and then unfolds a story that impresses a number of points. The reader is then asked to answer a series of questions about the themes and stories from his or her own life including: "How will I learn to listen to myself? How will I have the confidence to think anyone wants to hear it? Can it be said beautifully to express meaning? How will I recognize the message in my life story?" Keen's message is a vital orientation to the flexible, questioning, open mode of consciousness required by the naturalistic/responsive evaluator.

Knuckman, Charlene and McGee, Reece. The Mind's Eye: Readings in Sociology. Hinsdale, Ill.: Dryden Press, 1973.

Museums are institutions involved in and reflecting the culture around them. Therefore, the naturalistic/responsive evaluator within a museum needs to be sensitive to the larger issues of culture and society. Sociologists Knuckman and McGee feel that we have much to learn from the artist about observation and sensitivity. These are two skills, incidentally, that a naturalistic/responsive evaluator must also have. According to the authors, literature is full of examples that show us what the concepts of sociology are all about. With this point in mind, the authors selected readings drawn from literature that present sociological concepts. The collection is intended as a learning device. It is hoped that the reader will come to see how the concepts apply to a personal understanding of patterns in life. For convenience the readings are grouped under the concepts of: culture, socialization, deviation and social control, status and role, stratification, institutions and social change. The editors do not necessarily endorse any author's stand. Instead, the readings have been chosen for how well they represent and depict a particular concept. Each concept has a short two-page introduction, and each selection has an introduction explaining why it was included and what perspective it presents. The authors have included the gamut of fine writers: John Steinbeck, Daphne du Maurier, ERnest Hemingway, Joseph Heller, and so forth. This is delightful and thought-provoking reading. If you have never been taken with sociology before, your interest will be sparked. Furthermore, the book will kindle some interest in the importance of sensitizing evaluators to sociological concepts within the context of the museum.

II. Data Analysis Techniques

Alexander, Louis. Beyond the Facts: A Guide to the Art of Feature Writing. Houston: Gulf Publishing Company, 1975.

Alexander's techniques in feature writing can be of real help to the naturalistic/responsive evaluator who wants the readers of a report to clearly understand the facet of museum education s/he is exploring. Using numerous examples and analyses, Alexander presents techniques concerning organization, format, the use of research and interview information, and the use of point of view to unify information. Chapters 4 and 21 are good places to dip into this book to get an idea of Alexander's slant. In Chapter 4 he explains how the five "W's" and an "H" of good newswriting, how a story line, and how selection of important information are combined to give a reader perspectives on a person, place, or situation. In Chapter 21, he analyzes the tight organization of a "color piece" on dining out in Texas. The book is well worth the time, and Alexander practices what he teaches: the writing is lively, interesting, and easy to read and understand.

Becker, Howard S. and Greer, Blanche. "Participant Observation: The Analysis of Qualitative Field Data." In Human Organization Research, edited by R. N. Adams and J. J. Priess. Homewood, Ill.: Dorsey Press, Inc., 1960.

In this well-organized, readable article, Becker and Greer provide a model of qualitative data analysis. The authors use examples from their study of medical students; however, the steps they describe are directly applicable to analyzing information about museum topics, such as visitor reaction to participatory exhibits, school children's behavior on docent-led tours, or variations in crowd size. Becker and Greer note that the "If A, then B" paradigm of inferential statistics is often too simplistic to take into account the complexity of a process or situation. For example, it is too simple to say that a well-designed exhibit will produce visitor acquisition of information. The visitor's own background and experiences, the people with which s/he visits the museum, and the location of the exhibit also have important influences on what type and how much information a visitor acquires. Becker and Greer propose a sequential process of analysis which accounts for complexity. In the first stage the observer looks for concepts with the greatest promise of explaining a situation. For example, in the identification of a traffic pattern in a museum, the tendency to turn left might be an initial concept to consider in explaining visitor movement. The observer then moves on to checking the frequency and distribution of the phenomena which make up the concepts. In this way concepts worth pursuing as basic themes can be identified. These themes are used to construct a basic theory which is supported by and explains the data. Becker and Greer emphasize that the final stage of analysis is putting the data into reportable form. For example, it is not enough that the evaluator identify that architectural barriers make many parts of the museum inaccessible to senior citizens and the handicapped. The evaluator must cite these barriers, quote visitor reactions, and present clearly

described observations so that the reader of the report understands this theme and its impact. In this article, Becker and Greer's use of examples from actual field work and a straightforward writing style make the process they describe clear and understandable. However, they also reveal the systematic disciplined nature of qualitative data analysis.

Davis, Fred. "Stories and Sociology." Urban Life and Culture, Vol. 3, No. 3 (1974): 310-316.

Davis shares a particularly striking general strategy of qualitative data analysis which will assist the naturalistic/responsive evaluator in deriving patterns and configurations which will be comprehensible and valuable to a museum staff. Davis advocates a style of analysis which is attuned to the kind of story that can be told by the data. The story (or configuration of the data) is the general theory derived from and supported by the data. Davis uses examples of stories in sociology and literature to illustrate his concept. Then, he presents an extended example which reveals how he chose a story to use in reporting and analyzing his research on cabdrivers. Davis discusses four plots, themes, or stories he considered and explains why he chose the one he did. He also discusses major and subordinate plots. This general strategy is directly applicable to naturalistic/responsive evaluation in the museum; however, the reader may wish to generate his/her own stories of education in the museum context. A recent museum story which illustrates this point is one in which a ten year old remarked that he didn't like history in school, but he certainly did in the museum. Try this exercise to relate specifics to patterns, and Davis's concept becomes more and more relevant. This selection is brief, easy to read, and remarkably free of jargon.

Glaser, Barney G. and Strauss, Anselm L. The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine, 1967.

The thesis behind Glaser and Strauss's minor classic in field research is that theories or explanations of why events take place must be based on or "grounded" in what actually happens in an environment. Most texts on method in the social sciences emphasize how to verify theories, not how to discover them. This has results in experiments designed to verify concepts which are only peripherally important or irrelevant to people in processes studied. While Glaser and Strauss do not write about museum education in particular, their emphasis on the prior step of discovering what concepts and hypotheses are relevant in a situation can help the evaluator gather information and build theory which is useful to a museum staff. A place where such grounded theory would be particularly important would be in a study of docent-visitor interactions. Depending on the museum, the role of the docent might be seen as orienting first-time visitors, teaching visitors how to learn from objects, or acting as presenters of factual information. Again depending on the museum, visitors might want or need any one or more of these types of docent activities. The naturalistic/

responsive evaluator must talk to both docents and visitors and actually observe tours to discover promising explanations or hypotheses for what s/he observes. Glaser and Strauss present a method of focusing on systematic choice and the study of comparison groups in order to produce grounded theory. They cite numerous examples from their own research to illustrate their strategies. Museum educators should benefit not only from the strategies in this book, but from the general perspective that theory must be grounded in actuality before verification has any meaning at all.

Lofland, John. "Editorial Introduction to Analyzing Qualitative Data: First Person Accounts." Urban Life and Culture, Vol. 3, No. 3 (1974): 307-309.

To some, the analysis of information collected by interviews and observation may seem a simple or haphazard process. Lofland's brief editorial introduction refutes this unwarranted assumption, and sets forth three characteristics of good qualitative data analysis. Museum educators will want to attend to this process by which naturalistic/responsive evaluators derive explanations of how and why visitors experience the museum in different ways and derive patterns concerning staff attitudes and expectations. Lofland has looked at the methods used by successful veterans in qualitative data analysis and identified three characteristics of the process they use. First, he notes that veterans practice "a detailed, multi-stepped, multi-faceted discipline." He goes on to observe that the craft and discipline "is virtually identical to more traditional library-based scholarship." Only the sources of information differ. He concludes his analysis by pointing out that the successful field workers find and report large and general patterns; they are not, he emphasizes, the mere "data grubbers." Lofland introduces this article with comments on the neglected nature of data analysis. He provides insight into the rigourous, disciplined nature of the analytic process which the naturalistic/responsive evaluator must use to provide really useful information to those who make decisions about museum education.

Roth, Julius A. "Turning Adversity into Account." Urban Life and Culture, Vol. 3, No. 3 (1974): 347-361.

Roth's account of the data collection and analysis procedures he used in a naturalistic study on health care provides many techniques which can be used to analyze information about museum visitors. In addition, Roth's explanation of the motivation and context of his early work makes this interesting reading. (He was diagnosed as having TB and confined to an institution shortly after he completed his graduate work.) Topics include description of notetaking, transcription, and workplaces; sorting notes and deriving analytic categories; organizing and finding a mode of explanation to fit the categories. This first person account of how one inquirer goes about his work provides insight into the sensitivity and rigor of the process.

Smith, Louis M. "The Microethnography of the Classroom." Psychology in the Schools, Vol. 4, No. 3 (1967): 216-221. (Also in Curriculum Evaluation, edited by David Payne. Washington, D.C.: Heath, 1974.)

This introductory-level article may be of value to those preparing to study how visitors affect each other and how docents affect visitors. Smith discusses the issues he faced while observing and analyzing data in a study of classroom interactions. The content of his observations is not as important as the dimensions of the process which Smith identifies and discusses. These include: 1) those complex questions the observer keeps asking the data to answer; 2) making an effort not to accept classical solutions to classical problems; 3) the importance of identifying how people perceive what they are doing rather than relying only on the observer's perceptions; 4) supporting explanations of what occurs with vivid and concrete data; and 5) how interpretive asides made while taking notes can be used subsequently to direct the study and build a piece of holistic theory. This article is an interesting and readable account of one practitioner's experiences.

Wiseman, Jacqueline. "The Research Web." Urban Life and Culture, Vol. 3, No. 3 (1974): 317-328.

This is one of the most detailed accounts available of how one individual analyzes and reports naturalistic data. Museum personnel and evaluators will benefit from this account which offers insight into the process and provides description of procedures that are valuable in analyzing information about visitor behavior, docent techniques, museum programs, and the differential effects of exhibit intents. Wiseman compares the work to that of a detective. She notes that before she goes into the field she lists topics she wishes to observe, and then after some data is collected she begins to answer questions and generate new ones. "Early analytic decisions" are made after ten or so interviews; this includes deciding which data will be the major focus. Then a model is provisionally accepted to describe the data. Wiseman explains a list of six models which can be used: 1) time or career model, 2) cyclical, 3) social types, 4) social actions and interactions, 5) social setting and scenes, and 6) combinations. The models that Wiseman uses with sociological data are also applicable in the museum. For example, the time or career model could be used to trace the pattern of programs offered on a yearly basis by the museum or to show how a docent's techniques change as s/he becomes more experienced. The cyclical model could be used to identify periods of heavy and light visitor traffic during a week, month, or year. "Social types" might be changed to "visitor types" so that styles of viewing exhibits can be identified. A social settings or interaction model would help organize information about how the size of the group in which an individual comes to the museum will affect the type of experience. The setting and scenes model could be used to characterize visitor reactions to different types of exhibits (participatory, didactic, aesthetic, conceptual, multi-disciplinary, thematic). Wiseman also describes in detail how she codes material and produces a first draft. She ends with a set of criteria for judging validity, reliability, and significance. The novice could do far worse than to follow Wiseman's procedures until his/her own evolve. The experienced evaluator will probably be delighted to find a match between what s/he does and another practitioner.

Sample Studies and Reports

This bibliography would not be complete without a representative sample of evaluation reports and studies which demonstrate the narrative style of naturalistic/responsive reporting. One of the skills which a naturalistic/responsive evaluator must have is the ability to write so that the report "comes alive." There are few, if any, books available which "teach" that skill. In lieu of self-help books, worthy examples are no doubt the best teachers. Here are ten reports which are the best of those available. They cross a number of fields and take numerous forms. They are written for a variety of audiences. Nevertheless, they all have a common purpose. That purpose is to describe a situation or conversation in such a way that the evaluation audience can "understand" what it is like and what is happening. Museum educators will be particularly interested in The Giant Wombat, which is an evaluation of an exhibit area in the Smithsonian, and Roles and Goals, which is an interim report for a first-year study of the educational department at the Indianapolis Children's Museum, both by Wolf and Tymitz.

Coles, Robert. Privileged Ones: The Well-Off and the Rich in America. Children in Crisis, Boston: Little, Brown and Company, 1977.

Coles has masterfully written a descriptive summary in the vein of naturalistic/responsive reporting. This is only one of a five volume set, two of which were cited earlier in this bibliography. The entire set is recommended and the selection of this particular volume as a sample write-up is arbitrary. All the volumes are superb report examples and can be read and studied as report examples. In this volume, Coles describes his interview methodology with children, his reason for making this particular study, and his personal biases. Because of openly describing his circumstances and biases, Coles gives the reader a frame of reference for interpreting this book. This frame of reference is extraordinarily important because the reader is then keenly aware that s/he is learning of a situation via another person's eyes, ears, mind, and emotions. This frees the reader to question or to interpret in light of his/her own experience. It makes the learning from this book less absolute, perhaps, but more valid because the author has identified the biases. Many evaluation reports neglect to report the biases and it makes interpretation of the findings difficult and sometimes inaccurate. This recognition of biases is an important part of naturalistic/responsive evaluation and cannot be stressed enough. Also, in this volume, Coles describes how he picked up on the theme for this study, despite the fact that his original work dealt with the poor or underprivileged. This is an excellent example of how themes or issues emerge during a naturalistic/responsive evaluation. The in-depth case studies of privileged children are absolutely fascinating. Notice also the structure of the final report - the general outline - and the thoroughness and quality of the narrative. If one is reading to pick up the essence of report writing, the individual case studies can be skimmed. However, this is captivating reading, and it is difficult not to linger over passages or sections.

Denny, Terry. Some Still Do: River Acres, Texas. Urbana-Champagne, Ill.: Center for Instructional Research and Curriculum Evaluation, University of Illinois, March, 1977.

Denny has produced an excellent report on the schools in River Acres Independent School District, a suburban/rural setting in the Houston area. It is a portrayal in the finest sense as Stephen Kemmis describes it earlier in this bibliography. Denny gathered the information for his "story" on site from October 17, 1976, to December 18, 1976. He collected data by listening to 110 teachers, 90 students, over 20 administrators, 60 parents and 6 counselors. He also spoke with cooks, janitors, bus drivers, and secretaries. The rigor of his study is well represented in the rich narrative. Those who have taught or worked within the public school system will practically recognize themselves, their thoughts and experiences, as the quotations from the interviews literally "tell the story" of this particular system. The real essence of the richness of this kind of narrative is best described in Denny's own words: "Seeing may be believing, but I need more. I never see the picture worth a thousand words. It occurs to me that a very few words can represent a thousand pictures, can represent unobservable feelings, can reveal tomorrow's hopes and yesterday's fears which shape today's actions. My story is largely teachers' words. Students, parents, administrators and others with something to say about River Acres contribute to its telling. But it's mostly a story of and by teachers. . . .My observational notes pale in the strength of their words. So, I shall go with the teachers' words." Also, interlaced within the text is a description of Houston, the larger cultural setting, and a sense of its pulsating growth and its people. Denny highlights the text with special selections from Texas poets who provide a feel for the people and the place. Written with the need of the evaluation audience in mind, this report does not seek to prescribe. Instead, it portrays for the reader what is happening in this one particular school system. Its great worth is that it airs the many points of view within a complex environment thereby giving the decision-makers and any reader a more balanced picture of that particular situation. This is a beautiful report, highly recommended, and worth emulating in the use of portrayal.

Jacobs, Glen, ed. The Participant Observer. New York: Braxiller, 1970.

One of the strategies used by the naturalistic/responsive evaluator is what sociologists call participant observation. This strategy requires that the evaluator go into the museum setting, talk to visitors, watch them, and participate as a visitor. This enables the evaluator to understand how visitors of different backgrounds experience, or relate, for example, to a display or exhibit. But, to get a full picture, the participant observer must also capture the perspective of the museum staff and how decisions were reached concerning order of presentation, selection, lighting, grouping, and overall effects. In this way the multiple perspectives give a clearer portrayal of the processes operating. This source presents reports of sociological studies which used the participant observer method. These examples may be of interest

to the naturalistic/responsive evaluator in format and style, and to museum staff as an insight into the richness and comprehensibility of this method of data collection and analysis. Cover-to-cover reading is not suggested, but Alfred McClung Lee's preface offers a brief overview into the role of the social scientist, a rationale for participant observation, and an argument that there is no substitute for this strategy. Museum staff may be particularity interested in surveying the wide variety of social institutions which have been examined via participant observation. Studies on pool rooms, black business, and mental institutions make particularly interesting reading, though presentation style and diversity, not content, is our reason for including this work.

Redford, Robert. "Robert Redford Rides the Outlaw Trail." National Geographic, Vol. 150, No. 5 (1976): 622-657.

Robert Redford may not have set out to do a naturalistic/responsive evaluation, but his interviews and observations resulted in this National Geographic article which is a fine example of naturalistic/responsive reporting. Redford set out to capture a bit of our heritage, the Outlaw Trail, by retracing a major 600-mile segment of that trail through Arizona, Utah, and Wyoming. He became interested in the subject while filming Butch Cassidy and the Sundance Kid. In the process of following the Outlaw Trail for this article, he recounts the history of the people and territory. He contrasts that to his own insights into the present day people and his reactions to the climate and geography. He talks with ranchers, tour operators, and even Butch Cassidy's 92-year-old sister. As these people tell their stories in their own language, it becomes clear that this bit of the Wild West, our proud heritage, is rapidly disappearing. The beauty of the natural environment is not enjoyed by the local ranchers, for instance, because they cannot earn a decent living. But, others are fiercely proud of the land and its history. Some are trying valiantly to preserve its legends. As if all this is not fascinating in and of itself, there is a bonus. The text includes maps of the Trail, old photographs of famous outlaws with historical captions, and photographs of the present showing the landscape, present-day ranchers, and members of Redford's party on this journey. One of the tenets of naturalistic/responsive reporting is that the report communicates to its audience an understanding of a complex situation. This kind of reporting is not restricted to just written text. It can include drawings, multi-media, or whatever conveys the substance best. Redford's article admirably combines text and photographs. Watch how the narrative is woven together with a balance of interview data and observations. Notice the selection and placement of maps and photographs to help enrich the narrative. This is truly enjoyable and fascinating reading as well as an example of how naturalistic/responsive reporting can be done.

Rubin, Blanche Mallins. Lost Kingdons, Lost Worlds: A Responsive Evaluation. Indianapolis, Ind.: Indianapolis Museum of Art, 1978.

This report was commissioned by the Education Department of the Indianapolis Museum of Art to evaluate the impact of a summer program for inner-city youth funded by the National Endowment for the Humanities (NEH). The author presents an introduction to responsive education and how it is appropriate to this particular study. A description of the project, providing essential contextual data, is followed by the main body of the report: the concerns and issues raised by in-depth observations and interviews with over 175 respondents. The data is presented in six categories with extensive use of natural language quotes to substantiate the findings and their interpretation. The final section of the report discusses implications beyond the data for the education staff's consideration. This is an excellent example of the utilization of responsive evaluation on a limited basis: one short-term program scrutinized and portrayed by one evaluator. It is recommended as an example of both responsive evaluation methodology and reporting.

Smith, Louis M., and Pohland, Paul A. "Educational Technology and the Rural Highlands." In Four Evaluation Examples: Anthropological, Economic, Narrative, and Portrayal, edited by Richard H. P. Kraft et al. AERA Monograph Series on Curriculum Evaluation, Chicago: Rand McNally College Publishing, 1973.

Smith and Pohland tell the story of the introduction of Computer Assisted Instruction (CAI) into the elementary mathematics curriculum of the rural highlands of West Virginia. Museum educators will want to read this report to examine the strategies which the authors use to give a full picture of what happened with CAI in the schools, why it happened, and what successes and frustrations occurred. These strategies are well-suited to describing new exhibit areas, new docent techniques, and patterns of visitor interaction in the museum. Notice that the authors present information about context before any specific information about CAI. This contextual information includes a characterization of the social milieu of the rural highlands and descriptions of issues concerning funding, dispersal of equipment, technical problems, personnel, and curriculum development. The authors then move on to student and teacher use of CAI. This is done by identifying various elements of this use, such as student concentration span and how teachers matched in-class topics with those on the computer. These elements are then explained by using quotations from the participants and passages from observer field notes. In the final section of the report the authors describe the strategies they used to collect information. This description of the systematic participant-observer data collection lets the reader understand where the information s/he read in the first part of the report is coming from. Several elements of this report are characteristic of naturalistic/responsive evaluation. These elements include a presentation of the broad context in which the program occurs, use of the natural language of program participants, and a clear description of collection strategies. Reading this source in connection with The Giant Wombat report, also cited in this section, should enable the reader to see how very adaptable this reporting style is for a variety of settings.

Stake, Robert and Gjerde, Craig. "An Evaluation of TCITY, the Twin City Institute for Talented Youth, 1971." In Four Evaluation Examples: Anthropological, Economic, Narrative and Portrayal, edited by Richard H. P. Kraft et al. AREA Monograph Series on Curriculum Evaluation, Chicago: Rand McNally College Publishing, 1973.

Stake and Gjerde's evaluation report on this summer institute for talented youth is probably the best known example of a portrayal. Reading this report in conjunction with Steven Kemmis's article, cited in the "Background and Rationale" section of this bibliography, should enable the reader to appreciate the authors' responsiveness to both the subject under study and the audience for which the report is written. Notice that because the audiences of this report are funding agencies and program planners and not other evaluators and educationists, the writing style selected by the authors is conversational, not scholarly. They respond to the audiences by focusing on information which is of concern to funders and planners. This type of information includes brief characterizations of the people and setting involved in the institute, summaries of admissions policies, goals, and a calendar of the summer's activities. Each course offered is also described in terms of number of students, aims, and evaluator comments. This contextual information provides a background for understanding the perspectives of various program participants. These perspectives take the form of an essay by an assistant teacher in the wilderness course, a drawing by an art teacher, a poem by one of the students, and summaries of responses to three questionnaires used by the evaluation team. The report ends with an advocate's statement arguing the positive aspects of the institute, an adversary statement pointing out the institute's shorcomings, and an editorial from the Minneapolis Tribune that views both sides. These closing statements reveal an important part of Stake and Gjerde's approach. These evaluators provide information and description to give as clear a picture as possible of the institute. However, judgements about worthiness and success of the program are left to the funding agencies and program planners who must make decisions in a broader context. Museum educators will want to consider the applicability of this type of reporting to special events, traveling exhibits, and theatrical presentations sponsored by the museum. But the greatest value in reading the TCITY portrayal is in realizing that each naturalistic/responsive evaluation report reflects the uniqueness of the audience who reads it and of the subject it portrays.

Tymitz, Barbara L. and Wolf, Robert L. Roles and Goals: An Interim Report on the Children's Museum of Indianapolis. Bloomington, Ind.: Indiana Center for Evaluation, Indiana University, February, 1978.

Tymitz and Wolf were commissioned by the Indianapolis Children's Museum to study its education department and the impact of its programs within the museum. The first year's effort included observations and interviews with staff and visitors. The intent was to gain a familiarity with the museum and the education department - its staff and goals. This interim report reflects the boundaries of this first-year study. It is not extensive and does not pretend to

be comprehensive. It does not present data on the impact of the education department's programs since that is the focus of the second-year study. However, this first-year study is interesting because it reflects naturalistic/responsive methodology and how it can be used to report themes or issues as they emerge. The data centers around four emerging issues which represent the combined concerns of the education department as the staff discussed their goals and objectives with Tymitz, Wolf, and the ICE staff. These four issues were: the development of existing and additional programs, coordination with the schools, the level of optimal independence (for each staff member), and the role of the education department in exhibit design and modification. While this interim report does not use a narrative style with interviewee quotations, it does serve its audience, the education department staff. This report was presented to them for their comments and thoughts. Its purpose was to give the staff a framework for discussing their departmental concerns and practices. This interim report is a good example of the kind of analysis and reporting that emerge during the initial stages of an extended study.

Wolf, Robert L. and Tymitz, Barbara L. School Television Research: "Put the Findings on a Bumper Sticker and People Will Pay Attention to it." Bloomington, Ind.: Indiana Center for Evaluation, Indiana University, August, 1976.

Wolf and Tymitz provide an excellent example of how naturalistic/responsive inquiry can be used on a large scale, national evaluation study. The authors were commissioned by Exxon Corporation to do a school television study for the Agency for Instructional Television. The study took nine months and involved thousands of miles of travel. The authors visited eight states, Washington, D.C., and Canada. Each state visit took almost a week to complete. They met with the top echelon staff of every major organization involved in educational television. They visited Exxon Corporation and the Ford Foundation. They also had several interviews at the Children's Television Workshop. In the process of the nine-month study, they talked extensively to people involved with school television, observed functioning instructional television systems, and used documents related to the development, installation, and utilization of instructional television at both state and local levels. The resulting evaluation report is a thorough, comprehensive, and tangible example of the rigor involved in naturalistic/responsive evaluation. It is one of the best examples of how voluminous data can be analyzed and organized into a cohesive, useful, final report. Substantive quotations are laced throughout the text to lend credence to analysis statements. To reflect the nature of the evaluation audience, media is included in the form of cartoons that, more than providing humor, point out some current practices and thoughts regarding school television. This is highly recommended reading, not necessarily because of the subject of television but because it is organized and written in such a way it allows the reader to get a handle on a dynamic and complex situation.

Wolf, Robert L. and Tymitz, Barbara L. Whatever Happened to the Giant Wombat: An Investigation of the Impact of the Ice Age Mammals and Emergence of Man Exhibit. National Museum of Natural History, Smithsonian Institution. Washington, D.C.: Smithsonian Institution, 1978.

This is one of the best sources that museum educators can use to examine the process and see the type of information that a naturalistic/responsive evaluation can provide for a museum staff. Museum educators will want to consider at least four things when reading this report: 1) the way in which the evaluators used the information needs and perceptions of the museum staff to guide the study; 2) the rich data available through skilled and systematic interviews and observations of staff and visitors; 3) how inferences and patterns flow from the data itself and are not imposed from the outside by the evaluators; and 4) the presentation of natural language episodes and descriptions of observations so that the museum staff can both understand the process as the evaluators did and verify the inferences made. The report itself is divided into four sections. First, the authors provide data gleaned from interviews with staff and from museum documents relating to this exhibit area. This data describes the orientation and differences in orientation across persons involved in the development of this exhibit area. Much of this information is presented in the words of the museum staff and is divided into categories such as exhibit expectations, constraints, and evaluation information required. In the next section, "Hall 6 Observation and Interview Data," the authors present data from interviews with museum visitors. They also present observation data based on their own perceptions of how the visitors reacted in Hall 6. The third section, "Pedagogical Implications of Hall 6," provides information on how the exhibit was designed and inferences the authors made as educationists regarding the meaning of this data. In the final section, "Suggestions for Consideration" the authors generalize the implications of the study to the ways museums "should or can consider exhibit design and their pedagogical implication in the future." This report should reveal the possibilities of using naturalistic/responsive strategies not only to explore exhibit impact but to explore docent programs, museum community relations, and other important topics in museum education. Since this is the most thorough application to date of naturalistic/responsive strategies in a museum setting, this report is unique and highly recommended.